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Original Articles.

THE PENALTY OF DEFECTIVE VISION AND HEARING IN SCHOOL CHILDREN WITH A PLAN FOR ITS RELIEF.

By Frank Allport, M.D., LL.D., Chicago, Ill.

In the *North American Review* for June, 1906, appears an article by Dr. G. Woodruff Johnston upon the "Effects of School Life on Children's Health," in which the writer wisely attributes to "fatigue" a large share of the ill-health prevailing amongst school children, which renders them more or less incapable of receiving the benefits of a modern education. In the opinion of the writer of the present communication, however, Dr. Johnston, while setting forth his theme in a masterly and convincing manner, utterly fails to properly emphasize one etiological factor in the *production* of fatigue, that has become well recognized by medical men and educators, viz., defective sight and hearing, which, when existing, nullifies to a greater or less degree advanced systems of study and work-regulations, which otherwise would have been of inestimable value to the student. This is a conclusion which is so well understood by progressive medical men as to hardly require further argument from their standpoint; it remains, however, to fully convince the laity, school authorities, State Boards of Health and Education, and State Legislatures of the truth of these ideas, after which it is hoped and believed that wise and decisive steps will be taken to as largely as possible remove from, at least, our public schools this productive element in the physical fatigue of school children. The writer does not wish to be understood as entertaining

the idea that visual and aural incapacities are at the root of all school children's ailments and "fatigues," nor that such conditions are alone responsible for backward and defaulting students; he does, however, believe that such physical shortcomings represent an important factor in the ill-health and inefficiency of scholars, and that inasmuch as such factors can be largely mitigated or utterly removed, by suitable steps taken by the proper authorities, there should be no hesitation whatever in the active adoption of such measures.

In order to emphasize the importance of his theme, Dr. Johnston has gathered from the reports of the Commissioner of Education for the fiscal year ending June 30, 1903, certain figures showing the number of school children in the United States, and the expense of keeping them in school, etc., including the fact that our educational system costs us over $250,000,000 per annum, or over $3.00 per capita, to maintain. The writer begs to state that since these figures were compiled three years have elapsed, during which time our child population has increased, so that now, in our public schools alone, over 20,000,000 children are receiving an education, and the people of the United States have about $700,000,000 invested in school properties (irrespective of the cost of maintenance), a fact which certainly evidences their desire to have this great business and educational enterprise managed in the best possible manner, a condition which is clearly impossible unless the school children themselves are generally in good physical condition.

It may also interest students in sociology to know that there are in the United States about 300,000 blind people, many of whom would not have become blind if their incipient disabilities had been detected during school life, and that it costs the public about $15,000,000 per annum to care for such unfortunates.

It should also be remembered that over 50,000 American children are annually removed from school on account of debilitated physical and nervous conditions, precipitated by physical incapacity and injudicious mental pressure. Such children, being unable to acquire a suitable education, fall by the wayside—grow up in invalidism and ignorance, and help to fill the ranks of the weaklings, the worthless and the criminals. A multitude of statistical compilations unmistakably show that about 40 per cent. of children attending schools are afflicted with some tangible ocular affection, and that another 40 per cent. possess some ear, nose or throat disease of serious import. In other words, 80 per cent. of our school children, or 16,000,000, are suffering

from some eye, ear, nose or throat disease, which can easily be detected, and generally cured, or at least relieved, if the public health and educational authorities will only decree that this work shall be done. Is it hard to do? No. Is it expensive? No. Is it in any way objectionable? No. Can it be easily and effectively acomplished? Yes. Then why is it not done? The writer believes that the reason for the non-accomplishment of this plain duty on the part of hygienists, educators and legislators, is simply apathy, ignorance, neglect, or politics. Can such authorities not rise from the level of the past to the height of the present and of the future, and offer this tardy reparation to the poor and neglected children of this country, who must some day control its destinies? In view of all that has been accomplished along these lines during the past ten or fifteen years, it would seem almost unnecessary to produce an array of facts and figures like the foregoing for the convincement of authorities having such matters in charge—for it is an undisputed fact that healthy eyes and ears are quite essential to the ready acquirement of an education, and yet it is but natural to assume that where such authorities do not take decisive action along these important lines they cannot be fully awake to their duties and responsibilities. It seems necessary, then, not only to impress upon them the array of statistical facts just enumerated, but also to remind them that almost all children are born with reasonably healthy eyes and ears, and that such conditions as high myopia and hypermetropia, devastating inflammatory diseases, etc., are usually due, not only to possible inheritances, but to malnutrition, excessive study under improper conditions, neglect, lack of judicious medical attention, etc., most of which could and would be corrected if the situation was thoroughly understood, and intelligent action thereon energetically taken. The myopic or short-sighted eye is a diseased eye, proceeding from small degrees of shortsightedness to those of enormous extent, accompanied by disastrous ocular congestions, detached retina, etc., all fostered by excessive study under improper conditions, such as bad illumination, insufficient outdoor life, lack of proper glasses, etc. The average increase in myopia during school life is about 20 per cent. In Germany, the land of bad print and profound students, this proportion is increased to about 60 per cent. The hypermetropic and astigmatic eye renders study exceedingly irksome by producing headaches, tired eyes, nervous exhaustion, etc., thus sowing the seeds of illiteracy, ignorance and idleness, all of which might be prevented by timely

detection and medical intervention, coupled with the correct adjustment of glasses, etc. Inflammatory ocular conditions, such as the various forms of conjunctivitis, keratitis, etc., besides being foci of more or less dangerous contagion to other children, produce conditions making suitable study impossible and improper, and, again, provide scholars that are a burden to their teachers and encourage the swelling of the ranks of the idle and the outcast. Nasal and throat hypertrophies, such as turbinated enlargements, and polypoid, adenoid and tonsillar growths, produce deaf children (unable to absorb an ordinary education) and discharging ears, which not only induce deafness, and may be a menace to life, but necessitate the production of micro-organisms, which should exclude such children from school owing to their menace to the health of other children. A large proportion of the idle and criminal classes is being supplied and resupplied, as generation after generation of children are thrown upon the world, by children who, for some reason or other, have failed to acquire the education which enlarges and uplifts the soul and character, and opens up avenues for honorable and useful employment. Visit the criminal courts, the reformatories, jails and prisons, and how often do you find law-breakers who have been plucked from the ranks of the educated? Occasionally, it is true, but the great rank and file of the offenders are men and women of meagre or of no education. Some, it is true, are natural criminals, the offspring of criminal parents, but even here there must have been a beginning proceeding some generations back, perhaps from some ancestor who was deprived of an education by some physical defect, possibly of the eye or ear. The great mass of criminals, however, are not born offenders, but become so through associations and lack of a cultivating and ennobling education, which is, of course, practically impossible, if physical defects place such an education beyond their reach. The writer has no desire to magnify his theme, and does not by any means believe that all crimes could be expunged from society by the correction of the physical defects of children, but he earnestly believes that there is enough real matter in the subject to claim the fixed attention of sociologists, health and educational authorities and law makers, both as a matter of moral obligation and public economy. The physical condition of our children reaches down to the very substructure and foundation of society. The boy of to-day becomes the man of to-morrow, to whom we and succeeding generations must look for the advancement and prosperity of our country. The child cannot

act for himself, and often the parent is equally helpless or careless. It behooves those, therefore, who have such matters in charge to act for him, and to act wisely and well. His physical and moral as well as his intellectual status and progress should be carefully guarded and watched, and probably no avenue through which he can be reached is so important and accessible as the public school. Here he spends most of his waking hours, and it is here that his body, mind and heart should be under the strictest surveillance. The school requests, nay, enforces, his attendance, and volunteers to superintend the unfolding of his young life in its most critical period. It is, then, the sacred duty of school teachers and school authorities to note well their important and self-assumed obligations, and to give the child the benefit of the best and most modern thought and judgment upon this sacred and important subject. Our schools undoubtedly provide opportunities for great intellectual and moral advancement, but are they equally solicitous of the physical condition of the scholars?

Two things are necessary to raise corn: one is the seed, and another is favoring soil and conditions. So it is with the enlightenment of the young. The means of education are necessary, viz., the buildings, properly placed, constructed and conducted, including systems, books, etc., and then the child with the receptive mind and healthy body and senses, capable of receiving instructions and profiting thereby. We are surrounded by the means of education, for modern schools, with their effective machinery, are a source of gratification and delight to all, but enthusiastic, progressive and systematic educators to not always consider the soil upon which the seed of enlightenment falls; in other words, they are disposed to consider children as a massed entity, and do not separate them into isolated individuals, with distinct inheritances and mental and physical peculiarities rendering them more or less adaptable to the requirements of the modern public school. Children are thrown into the great machinery of school life, are divided into grades and are expected to adhere to them and become educated according to a certain system. A child may have a weak or crooked back, which will become aggravated by close confinement at improperly constructed desks; he may have lungs handicapped with the incipient germs of tuberculosis, encouraged by the protracted inhalation of vitiated school air; he may languish from general systemic impoverishment, and pine and droop under too much study and too little fresh air. These are some of the conditions

noticed in school children, militating against the easy acquirement of an education; but more directly essential still is the existence of certain abnormal conditions of the organs of special sense and hearing, which are certainly of prime importance, in the imbibition of presented instruction. If a child cannot see well and hear well, his position is certainly most unfortunate in the modern public school, where he is expected to keep up with his grade work or else subject himself to chagrin and mortification. The writer does not wish to be understood as saying that our schools are likened to the Car of Juggernaut, that ruthlessly throws down and crushes all who unfortunately come in contact with its destroying wheels. Far from it. The writer fully appreciates the gentle, humane and sympathetic feelings that proceed from the hearts of most teachers towards those children committed to their care. The writer is not unaware of their watchfulness and solicitude over their little flock, that prompts them to change the seats of the deaf and near-sighted, to make allowances for any noticeable physical or mental shortcomings, to frequently visit parents and urge upon them the necessity of action concerning the health of the child; but these are isolated though frequent instances, inspired by individual sympathy and character, and restricted by necessary ignorance of such subjects on the part of the teacher. What we want is a paternal school system of health investigation, by which the physical defects of children will be made manifest, and steps taken to protect pupils against themselves, and in many instances against their parents. We also want a system that, after these unfortunate conditions have been discovered, will not only *allow* but *insist* upon the harmonizing of the studies to the child, and not the child to the studies. The writer is not unaware of how often this is done; that a doctor's certificate of poor health is usually respected; that the course of study is sometimes changed under the advice of the parent or teacher; but the writer thinks he is not wrong in saying that these changes are comparatively infrequent, and so little encouraged that children will often endure much physical discomfort or even suffering rather than assume the chagrin and mortification brought upon them by the unenviable distinction of a grade change. These changes should be inspired from the intelligent illumination of regular physical examinations, and should be so common as to excite no comment, and give rise to no loss of a pupil's self-respect, or disappointment on the part of the parents, who frequently allow the child to languish and acquire permanent invalidism rather than

interfere with his class standing or the date of a projected graduation. The writer would not be understood as advocating the abolition of systems and grades. It is needless to say that schools cannot be properly conducted upon other principles. Neither does the writer advocate the indiscriminate changing of grades without just and adequate consideration. Neither does the writer ignore the fact that grades are frequently changed for good and sufficient reasons. The writer advocates more systems and more grades. The writer advocates a system of physical examination in schools by which we may *know* the condition of a child's health, and not trust to chance or circumstances to detect it; and he advocates more and shifting grades, commensurate with the physical condition of defective children. In other words, the writer does not believe in the wholesale education of the rising generation, which is our country's hope, its bulwark and defence, and whose physical as well as moral and mental condition is a sacred trust which we must guard and cherish. The writer does not believe in thrusting these little yielding, impressionable, often sickly lives into a common crucible, to be moulded and turned out with identical exactitude and precision. He believes that children should not be damaged by their educational existence, but should emerge from the portals of the American public schools in better physical, mental and moral condition than when they were entrusted to its fostering care, and that steps should be taken calculated to bring about the fulfilment of this plain and imperative duty.

While the physical examination of children should include *all* children, rich and poor, young and old, it is to the poor and neglected child that they must of necessity become the most useful. The children of well-to-do and intelligent parents are usually, though not always, well cared for through parental love and solicitude, and their slightest ailments ministered to by the medical adviser, but it is quite otherwise with the children of the tenement, the hovel and the slums, who frequently are parentless or—God knows—might better be. If education is worth anything in the broadest sense, and if it passes beyond the borders of dilettanteism into the broad realms of those influences which stand for human uplift, then it should reach down, down to the very dregs and bottom of the social scale, and pull up the most unfortunate of the human race and place them on a par with their fellow-men. We all know that education will perform this great evolutionary process, and the writer claims that it is the inalienable, inborn right of every citizen of this great,

magnificent republic to be placed in a position where an education may be acquired, for to education we must look for the solution of many of the sociological and criminological problems of the day, the solving of which means much for the betterment and happiness of our fatherland. If obstructions exist militating against this Utopian condition, which are relievable by acts undertaken by the guardians of the public welfare, they should not shrink nor hesitate in the execution of their duty, but should cheerfully and promptly perform such acts, and, if necessary, vicariously assume the office of father and mother to those who are bereft either by death or unfortunate conditions of the benefits of such benignant influences.

The responsibilities of school authorities along these lines are enormous, and involve, among other things, such questions as the location of school buildings with reference to air (Billings says that children should have thirty cubic feet of fresh air each minute for each child), space, noise and drainage; the construction of the building itself with regard to window space, and the direction of light, proper ventilation, plumbing and heating; the necessity for good and artificial illumination; the prevention of overcrowding; the necessity of medical inspection before and during school life; the use of proper drinking water and cups; the providing of washstands, towels, etc., that will be free from contagion; the construction of desks of different sizes for different ages; the use of desks that are of the proper slant and height, and compel an upright position in reading and writing; the frequent intermission from studies, and the change from one study to another, thus compelling a combined rest of the eyes, mind and body; the proper regulation of the means of study, such as the distance and color of blackboards, the color of slates, the character of print, and the paper on which it is printed; the necessity for vaccination; the exclusion of contagious diseases, and the exertion of advisable quarantine regulations; the placing of scholars in grades suitable for their physical and mental conditions; the forbidding of too many studies, in order to prevent much home study; the supervision of games, sports, etc., and the general physical health of scholars; these and many other problems must be met and solved by school authorities, and upon their wise and conservative opinions and acts depend very largely the ocular and aural health of children and the general well-being of the coming generation.

One of the most important topics for those who manage schools to consider is the proper care of children during the

period of adolescence, or, in other words, between the ages of about fourteen and eighteen. During the course of this wonderful unfolding of Nature's purposes, the nervous, mental and physical condition of the child is in a peculiarly sensitive and precarious condition. Nature is busy with her physiological changes, the child's resistance is taxed to its utmost, and during this important epoch of existence the individual should surely be relieved of all unnecessary physical, nervous and mental taxation. This is not the time for excessive study, either at school or at home; it is not the time for grade vaulting or extreme mental activity; and yet how often do we see children, ambitious themselves, perhaps, or forced to unduly studious habits by ambitious parents or teachers, paling and fading away from overapplication, until a broken-down constitution, thus early in life, proclaims the folly of the undue prosecution of a prevailing error.

One of the most interesting investigations that have been recently made concerning the relations existing between the ocular conditions and mental development, has been undertaken by Gelpe, who has examined 578 physically defective children, and found that 419, or about 72 per cent., had defective eyes, and that the worse the mental condition of the child the worse the eyes were found. A very large majority of these cases were improved by treatment, glasses, etc., showing what can be done even with children of feeble intellect by intelligent examinations and care. He shows that a predisposition to feeble-mindedness, congenital or otherwise, may certainly become active or be aggravated by various ocular defects, especially by uncorrected refractive errors. He compares defective visual organs to an ill-adjusted objective of a photographic camera, imparting to the retina and the brain indistinct images, thus putting such a severe strain on the nervous system as to handicap the mental development of the child. He found the significant fact that myopia decreased in direct proportion with the decrease of intelligence, and found that in these children of defective mentality myopia existed in about 12 per cent. of the cases, hypermetropia in about 32 per cent., while astigmatism occurred in 30 per cent. of the cases. These data are most interesting, and, the writer believes, fully coincide with the opinion of those who have observed many children of low physical or mental development. While the various avenues of this interesting subject might be more thoroughly elaborated, enough has surely been said to clearly indicate that a majority of school children are suffering from some

eye, ear, nose or throat disease which to a greater or less extent debars them from the advantages of a modern education, and which, secondarily, induce the various forms of "fatigue" and bodily disease to appear, which must play an important role in handicapping the physical, mental and moral development of the child. While fully prepared to admit the importance of other disabilities, the writer fully believes that aside from mental incapacity there is nothing so essential to the acquirement of an education as good eyes and ears, and without them the pathway to an education must be thorny indeed.

The pity of it is that practically all of such conditions, and many more too numerous to mention, could be cared for or cured if detected early in life by the annual systematic examination of all school children's eyes and ears; and of the various methods that have been essayed from time to time to accomplish this purpose, the simple examination by school teachers is the only one that has been even reasonably successful, and is surely the only one that contains sanguine prospects of becoming universally adopted. Such examinations would be made if only all health and educational authorities, aroused to the importance of the situation, would issue their separate orders that such examinations *must be made;* the pity of it is, they do not do it. The writer further feels that such examinations can never reach their highest usefulness unless performed with methodical regularity every year. The sporadic care of this child and that child does not suffice; the general and kindly observation of children by even willing and intelligent teachers, with occasional advice to students and parents that medical advice be sought, is not enough, for generally no attention is paid to such unofficial suggestions, certainly not as much as would be paid to a formal printed notification of the child's imperfect physical condition, and besides this, many important and serious diseases may exist without exciting the observation of the average teacher. The examination of these organs of special sense by physicians is no novelty, and has been accomplished many times for the purpose of gathering statistics and doing good. The employment of physicians for this work, however, has been well proven to be practically impossible, as it involved too great an annual expense, and almost invariably produces so much professional jealousy and friction as to place an efficient quietus upon any future investigations. For the purpose, therefore, of overcoming these two objections, and yet of accomplishing the end in view, the writer proposed, in February, 1895, that such examinations should be

annually and systematically performed by school teachers, and that any scholar found to be defective should be furnished with what the writer calls a "card of warning," which is to be handed to the parent. This card simply notifies the parent that his child is believed to have some eye or ear disease which impedes his progress in school. The parent is urged to consult his family physician, or some eye or ear surgeon, either at his office or free dispensary. The card does not *insist* upon such a consultation, and leaves it entirely open as to which physician shall be consulted. In this way, no physician sees the child until the parent voluntarily escorts the patient to some medical man of his own choice; this, of course, does away entirely with any professional friction, or any suspicion of collusion or favoritism. In order that the presence of a disease may be detected by the teacher, the writer has arranged a series of nine questions, absolutely plain and simple in their character, for which the teacher is to obtain the answers. They are, for instance, such questions as these: "Does the pupil habitually suffer from inflamed lids or eyes?" "Does the pupil fail to read a majority of the letters in the number XX line of Snellen's test types with either eye?" "Does matter or a foul odor proceed from either ear?" "Is the pupil an habitual mouth-breather," etc. It will be observed that these questions are so primitive in their character that any teacher worthy of the name can easily furnish answers to them, and yet the nine questions are so comprehensive in their significance that when correctly answered they will disclose the existence of 90 per cent. of serious eye, ear, nose and throat diseases. The teacher, however, should not feel that she is expected to furnish a diagnosis of the child's disease; she is only expected to know that some abnormal condition exists. The diagnosis and treatment are left for the physician. These tests should be made as soon as possible after the opening of the Fall term, as this is not only the most convenient time for the work, but it will also give the teachers a long opportunity of following up the tests and watching the effect of medical treatment. The tests should be made by the room teachers, as they are more familiar with their scholars' infirmities, and such a subdivision of labor imposes no hardship upon anyone. A school-room can easily be examined in one day, which means, of course, that every public school child in any city can be examined in a day, provided each teacher does her own examining, or, if it is preferred, a few pupils could be kept after school each day, and the entire work accomplished easily in one week. The extra work thus

expended by the teachers will be generously rewarded in the end by the transforming of dull students to bright ones by medical treatment, glasses, deafness relieved, etc., for who does not know the nervous exhaustion experienced by teachers in endeavoring to instill knowledge into children's minds who are suffering from eye or ear defects?

As a complete description of the tests will be given at the end of this article, it will be unnecessary to further describe the method at this juncture, and the writer will merely say, in answer to many inquiries, that the expense of making these tests is so nominal that it is really not worth considering. For instance, a large city containing 5,000 school-rooms can have a testing chart, with testing letters and instructions to teachers printed on it, for every room by an expenditure of about $200. The expense of "Warning Cards," and simple record blanks need not exceed $100. A city like Chicago can, therefore, have this work thoroughly accomplished by the expenditure of a little time, labor and $300. The testing charts and teachers' instructions can be used for years, if carefully preserved. It will, therefore, be seen that the question of expense is quite immaterial and need never be considered; the only question involved in an honest determination to see that this important work for the coming generation is annually and properly accomplished.

In order to facilitate the work and bring it more fully before the profession, the writer secured at a recent meeting of the American Medical Association the passage of the following resolutions, both in the Ophthalmological Section and the House of Delegates:

"Whereas, the value of perfect sight and hearing is not fully appreciated by educators, and neglect of the delicate organs of vision and hearing often leads to disease of these structures; therefore, be it

"*Resolved*, That it is the sense of the American Medical Association that measures be taken by boards of health, boards of education and school authorities, and, where possible, legislation be secured, looking to the examination of the eyes and ears of all school children, that disease in its incipiency may be discovered and corrected."

Since then these resolutions have been adopted by the Mississippi Valley Medical Association and by the State Medical Societies of the following States: Minnesota, Colorado, Illinois, Michigan, Montana, New York, Indiana, North Dakota, Rhode Island, Alabama, Utah, South Dakota, Delaware, California,

Massachusetts, Arizona, West Virginia, Kentucky, Louisiana, Nebraska, Washington and New Jersey.

The resolutions have also been adopted by the American Public Health Association, by the State and Provincial Boards of Health of North America, and by the State Boards of Health of the following States: Kansas, Minnesota, Colorado, Wisconsin, North Carolina, Vermont, Illinois, Montana, New York, Indiana, Connecticut, Ohio, North Dakota, Rhode Island, Alabama, Pennsylvania, Maine, New Hampshire, Michigan and Utah.

The resolutions have also been adopted by the State Boards of Education of the following States: Texas, Kansas, Minnesota, Colorado, Wisconsin, North Carolina, Vermont and Connecticut.

Besides this, the tests are being placed in operation in the government schools in India, and in hundreds of schools in America where they are not required by school authorities.

Two State Legislatures have incorporated this movement in a public law—Connecticut and Vermont; and in the last message of the Governor of Massachusetts to the Legislature he strongly recommends that the annual systematic examination of public school children's eyes and ears be ordered by the lawmakers of that State. The Connecticut law reads as follows:

"Section 1. The State Board of Education shall prepare, or cause to be prepared, suitable test-cards and blanks, to be used in testing the eyesight of the pupils in public schools, and shall furnish the same, with all necessary instructions for their use, free of expense to every school in the State.

"Section 2. The superintendent, principal or teacher in every school, sometime during the Fall term in each year, shall test the eyesight of all pupils under his charge, according to the instructions furnished as above provided, and shall notify in writing the parent or guardian of every pupil who shall be found to have any defect of vision or disease of the eyes, with a brief statement of such defect or disease, and shall make a written report of all such cases to the State Board of Education."

The Vermont law reads as follows:

"Section 1. The State Board of Health and the Superintendent of Education shall prepare, or cause to be prepared, suitable test-cards, blanks, record books and other needful appliances to be used in testing the sight and hearing of pupils in public schools, and necessary instructions for their use; and the Superintendent of Education shall furnish the same free of ex-

pense to every school in the State. The superintendent, principal or teacher in every school, during the month of September in each year, shall test the sight and hearing of all pupils under his charge, and keep a record of such examinations according to the instructions furnished, and shall notify in writing the parent or guardian of every pupil who shall be found to have any defect of vision or hearing, or diseases of eyes or ears, with a brief statement of such defect or disease, and shall make a written report of all such examinations to the Superintendent of Education, as he may require.

"Section 2. The State Auditor is hereby directed to draw his order on the State Treasurer for such sums and at such times as the Superintendent of Education, with the approval of the State Board of Health, may require to carry out the provisions of this Act. The total expense under this Act shall not exceed six hundred ($600.00) dollars in any biannual term ending June 30.

"Section 3. This Act shall take effect July 1, 1905"

The Vermont law seems to be the better of the two, not only because it specifically states that the examination shall be made in September, but particularly because it includes ear defects (which, of course, means also nose and throat defects), which is of the greatest importance. It is to be hoped that the Connecticut law will be amended to fulfil this requirement. It is also to be hoped that these tests will become a law, and an active, living law, in every State of this country; but to effect this the combined medical and educational energy of the professions in each State is a positive necessity. The American Medical Association resolutions should be passed by every State Medical Society, and active committees appointed to induce the State Boards of Health and Education to likewise adopt them and to actively undertake the work. If this can be done, an act of legislature is hardly necessary; still, if this can be accomplished it is certainly a vast improvement and should always be effected where possible. It should be remembered, however, that legislatures are hard to move and only convene once in two years, while boards of education and health are more susceptible to measures of this kind and can be reached at almost any time. The writer would, therefore, advise that those interested in the matter should first secure the co-operation of their State medical societies and boards of health and education, and then secure suitable legislation on the subject wherever it is possible.

The writer would like, through the pages of this magazine,

to address the following questions to all boards of health and education, all legislatures, and all who are interested in the physical and moral welfare of our children:

Do you believe that bad vision and hearing constitute an important barrier to the reasonable and easy acquirement of an education?

Do you believe that a vast number of children are thus embarrassed?

Do you believe that a great benefit to the children, to society at large and mankind in general, would be effected if such physical defects could be detected and relieved?

Do you believe that some such plan as the writer has proposed would be instrumental in largely relieving such defects?

Do you believe such a plan to be practical, unobjectionable and inexpensive?

The writer thinks the answer, "Yes," must be returned to each one of these questions. Then may I ask still another question: Why do you not take up this work and carry it through? The writer addresses this interrogative to those who, by reason of their public offices, have the power to enact rules and laws calculated to produce beneficent results on the public at large. The writer, as a private individual, can do nothing, but they, as public officers of Canada and elsewhere, can do much. Will they do it?

The Details of the Plan.

Instructions for the Examination of School Children's Eyes and Ears, etc.

For Use of Principals, Teachers, Etc.

Do not expose the card except when in use, as familiarity with its face leads children to learn the letters "by heart."

First grade children need not be examined.

The examinations should be made privately and singly.

Children already wearing glasses should be tested with such glasses properly adjusted on the face.

Place the "Vision Chart for Schools" (Snellen's) on the wall in a good light; do not allow the face of the card to be covered with glass.

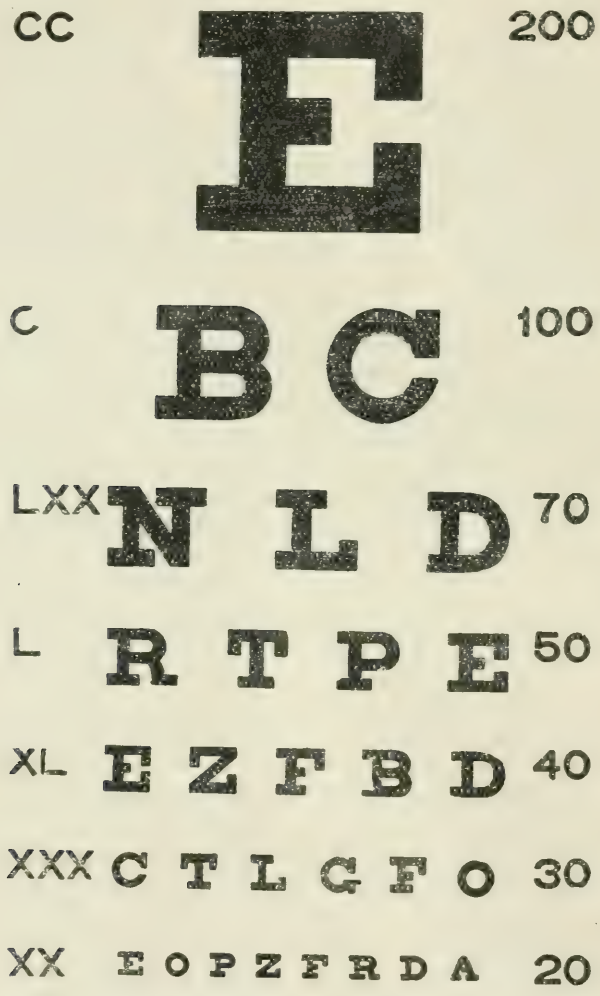
The line marked XX (20) should be seen at twenty feet, therefore place the pupil twenty feet from the card.

Each eye should be examined separately.

Hold a card over one eye while the other is being examined. Do not press upon the covered eye, as the pressure might induce an incorrect examination.

Have the pupil begin at the top of the test card and read aloud down as far as he can, first with one eye and then with the other.

VISION CHART
(Reduced Cut)



Facts to be Ascertained.

1. Does the pupil habitually suffer from inflamed lids or eyes?
2. Does the pupil fail to read a majority of the letters in the number XX (20) line of the Snellen's Test Types, with either eye.

3. Do the eyes and head habitually grow weary and painful after study?
4. Does the pupil appear to be "cross-eyed"?
5. Does the pupil complain of ear-ache in either ear?
6. Does matter (pus) or a foul odor proceed from either ear?
7. Does the pupil fail to hear an ordinary voice at twenty feet in a quiet room? Each ear should be tested by having the pupil hold his hand first over one ear, and then the other. The pupil should close his eyes during the test.
8. Is the pupil subject to "colds in the head" and discharges from the nose and throat?
9. Is the pupil an habitual "mouth breather"?

If an affirmative answer is found to any of these questions, the pupil should be given a printed card of warning, to be handed to the parent, which should read something like this:

Card of Warning to Parents.

After due consideration it is believed that your child has some Eye, Ear, Nose and Throat disease, for which your family physician or some specialist should be at once consulted. It is earnestly requested that this matter be not neglected.

Respectfully,

.....

School.

If only an eye disease is suspected, the words "ear, nose and throat" should be crossed off; if only an ear disease is suspected, the words "eye, nose and throat" should be crossed off; if it is only a nose and throat disease, the words "eye and ear" should be crossed off.

It will be observed that these cards are non-obligatory in their nature. They do not require anything of the parent, who is at perfect liberty to take notice of the warning card or not, as he sees fit. They simply warn the parent that a probable disease exists, thus placing the responsibility upon the parent.

Nevertheless, if parents neglect the warning thus conveyed, the teacher should, from time to time, endeavor to convince such parents of the advisability of medical counsel. Teachers are urged to impress upon pupils and parents the necessity for consulting reputable physicians.

These tests should be made annually at the beginning of the Fall term, and should include all children above the first grade.

Each teacher should examine all the children in his or her own room, and should report the results of such examinations to the principal, such reports to be signed by the examining teacher.

The following simple form of report, to be filled out by the teacher and handed to the principal, is suggested, and may be printed upon paper of any size and character that is deemed advisable by the local school authorities, and should be distributed to the different room teachers.

No.	Name of Pupil.	Do the tests indicate an Eye, Ear, Nose or Throat Disease? Answer "Yes" or "No." If so, which?	Was the pupil given a Card of Warning?
1	John Doe	Yes Eye	Yes
2	Robert Smith	Yes Ear	Yes
3	Mary Brown	No	No
4	Edward Hart	Yes Nose & Throat	Yes

[These charts, with instructions attached, are published by F. A. Hardy & Co., 131 Wabash Avenue, Chicago, and can be procured in any quantity desired by addressing the publisher.]

72 Madison Street.

MEDICAL THOUGHTS, FACTS AND FANCIES.

By James S. Sprague, M.D., Stirling, Ont.,
Author of "Medical Ethics," etc.

"New worlds have arisen and we have lost old nations," to employ a hyperbolism, since I commenced the practice and announced it by the tin sign to those who spoke in the manner of men, but the manner pertained to several distinct nationalities, totally foreign.

From midshipman to vice-admiral is a history given us by Sir Evelyn Wood, but in medicine the laurels of the first year's practice are such as one generally wears and expects in each and every decade, unless one abandons the practice and seeks other pursuits wherein steps of promotion are known to exist, each successfully crowned by increased honors and rewards—thus caught by the sacred thirst—the sacra fames auri—of Virgil. Medicine is losing, has lost, and will ever lose men whose souls are not with us—the steady, everyday plodders in practice. Yet, such is well, for medicine has been ever a most jealous mistress, and if not, as a rule, she with the riches of coins enriches us, it is gratifying to know the righteous are seldom forsaken—that few of us are sued—a lesser number are star occupants of refuges, and of the other professions, the least found in institutions for detention are we. Dr. Oliver Wendell Holmes says, among us M.D.'s it is impossible to find one who, to the novelist, would be the ideal villain in the plot, yet accused are we of atheism—too often so. If in any sense we are deserving of the accusation it is attributable to our inmost knowledge of the character, thoughts, even teachings, of those who, with license, proclaim The Christ who taught that which all the great philosophers taught, the necessity of study and the realization of grandeur of the divine possibilities in each and every man—failing much in this, in consequence of the illiteracy of too many, who dream not of Christ's principal teachings of the ideal man, the doctor is, in consideration of closer association with men—in fact, longer association than the average minister has, by education and wider reading, more capable of impressing and encouraging the necessity of every one among his acquaintances to abandon meanness. "Get out of your meanness," Sam Jones preached, and he, like the average

doctor, knew the people—he saw them in their every-day lifework. Yes, the ordinary country doctor, even if only moral—the possessor of ethical virtue, is the ideal man among men, and his markings of the worth of saints and sinners in his clientele would be accepted by the King of Kings. Yes, it is he "who carries with him a god—an ideal of beauty, and who obeys him, an ideal of art, an ideal of science, an ideal of patriotism—and an ideal of the virtues of the gospel," to Pasteur are these words, this legacy, these truths, and he wrote those words as if we, you and I, were with him in the inspiration, knowing and believing our confirmation. Time and history have approved, are proving, and ever will approve, these utterances of a master mind—sufficiently medical—quite enough for the praise of the in-rushing centuries. Yes, past centuries have had illustrious men in medicine, and in Homer's time they won his eulogy. Apollo, Esculapius and other illustrious founders of medicine, *merito pro diis habiti,* were gods, and are gods, and everywhere venerated, whereas Venus at Cyprus, Diana at Ephesus, and Apollo at Delos, and other gods in other separate and well-defined limits, had their shrines; yes, everywhere, the shrines in classic Greece, for the gods in medicine. However, we, in early days, did not escape the satirist, for *Maximilianus urentius,* defines the doctor and the surgeon:

Chirurgicus medico quo differt? Scilicet isto. Enecat hic succis, enecat ille manu.

Carnifice hoc ambo tantum differe videntur. Tardius hi faciunt, quod facit ille cito.

(How does the surgeon differ from the doctor? In this respect: One kills by drugs, the other by the hand; they differ from the handman, for they do slowly what he does by the work of a minute.)

While considering the works and the lives of the fathers, I learn that jealousy was a characteristic of the Man of Cos.—The Hippocrates—who when he had a call to a distant part, although his wife was left with her parents, yet he had a friend, Democritus named, as vigilator, to guard her from the salacious. The fair river Arethusa, from which men, women and horses drank, had jealousy, even if it imparted nobility, beauty and strength. However, jealousy is, as when Hippocrates lived, not so much as respects our wives, but our confreres—*inter fratres.*

If new worlds have arisen, old worlds crumbled, the works of literary men—the master minds—have come down the ages, no way impaired, but sufficiently illustrative that, after all, there is not much

that is really new. Yes, "the thoughts we are thinking, our fathers have thought." Even if one, however scholarly, can unfold the writings of the illustrious dead, he learns there were scholars before him, even before Homer, for even when he "smote his tuneful lyre, he'd 'eard men sing by land and sea, and what he thought he would require" he made use of in the same manner as the modern scholar, and frequently, as Homer did, tears off the "Hall" mark. To me it seems an age from the broncho and the saddle-bags to the auto-motor car, yet not four decades, and although apparently many triumphs are named for medicine, yet many old truths have survived, but have met with so many sub-divisions, especially as relates to psychology, that alienists have bewildered the real and faithful investigator, while the Eddys, Dowies and their numerous copyists, have toyed with the innocent and weak-minded, brilliant and even cultivated minds, and enriched themselves even within the shadows of our greatest universities, and we as learned men have stood by, have either mourned, have had pity, have ridiculed, and yet powerless are we for the want of co-operation of the profession in studies so much enjoyed, so much discussed and written on by the fathers in medicine. The philosophic study of man, the divine possibilities of man, are subjects for our foremost researches and considerations, and if assisted by a learned and non-superstitious clergy, too often silent encouragers of incredulity, we, sustained by the writings of the fathers, would save the balance of this century from being disgraced, by the madness of the crowds for popular delusions—not least the mad houses. History affords us many lessons. Paracelsus has many copyists, and they walk forth in mid-day—and are even asking to be recognized by our Provincial Parliament.

Clinical Department.

A Test of the Efficacy of Sal Ethyl in the Treatment of Rheumatism.

A. F. Malloy, M.D., Exeter, Ontario.

Mrs. G., aged 35, married, had typhoid fever when seventeen years of age, and since that time had been afflicted with five attacks of rheumatic fever. I was called to see her on the 16th of September, 1906, and found her suffering with a feverish condition, pains in the ankles, profuse perspiration, and a slight eruption. I diagnosed the trouble as rheumatic fever and put the patient on salicylates with a heart tonic. At the same time I kept up good elimination. Under this treatment the symptoms did not abate; on the contrary, the patient got weaker and the temperature rose to 105 1-5 degrees with a pulse of 102. This condition prevailed for two weeks, whereupon the patient became constipated, complained of pain in her abdomen, had swollen eyelids and sensitive conjunctivæ as well as intense headaches, which were controlled with ice. The stomach was very irritable and the patient was unable to retain any food or medicine. At about this time I administered Sal Ethyl Globules (P. D. & Co.), which immediately produced a reduction of temperature, and the stomach became more retentive. When the supply of Globules gave out, I began using salicylate of sodium, while awaiting another consignment of Sal Ethyl. During the following five days, the eyelids became swollen, the temperature went up, the joints became painful and the patient was delirious. When the Sal Ethyl was administered the second time, all of these symptoms abated, and the patient did nicely for nine or ten days, until my supply of Sal Ethyl ran out again. Another supply was obtained by mail, in three days, but during the interval the patient developed intense pleuritic pains. When Thermofuge was applied and Sal Ethyl given internally, these subsided directly and the patient made an uninterrupted and complete recovery. This case demonstrated that, no matter what serous membrane may be affected, the trouble immediately responds to Sal Ethyl in doses of 2 globules every three hours and subsequently one globule every 4 hours.

Actinomycosis of the Vermi-Form Appendix. Thos. H. Kellock, M.A., M.D., Cantab, F.R.C.S., Eng., Surgeon to Out-patients at the Middlesex Hospital; Surgeon to the Hospital for Sick Children, Great Ormond Street.

The author first pointed out how much more frequently actinomycosis or streptothricosis, as the affection should be preferably termed, was recognized since more modern methods of examination had been employed. The affection, which was formerly expected to attacked the jaws, liver, and lungs almost exclusively in persons whose occupations and lives were followed in the country, was now often recognized in many other parts of the body and in persons of various occupations and forms of life, town as well as country. The star or ray formation was not always present, and its absence must frequently have led to a negative diagnosis when the affection would have been recognized by proper staining.

As the fungus of streptothrix generally enters the body by the alimentary or respiratory tract, and has a great disposition to insinuate itself along the ducts of glands opening into these, it is easy to understand that the vermiform appendix should fairly frequently be attacked when the organism has travelled along the alimentary canal as far as the cæcum.

From the number of reported cases, actinomycosis of the vermiform appendix would appear to be a not very uncommon form of disease of that organ. An investigation of the records at the Middlesex Hospital showed that during the last three years seven cases had been under treatment in which the presence of a streptothrix had been demonstrated. The notes of two cases were read in which septic infection had been superadded to the streptothrix, in both of which portal pyæmia and streptothrix abscesses in the liver had been found *post mortem,* and in one a similar affection in the pancreas and pleura. In three cases the disease had been limited to the neighborhood of the appendix, whilst in two this had been associated with an abscess presenting through the abdominal wall at some distance from the appendix region. A streptothrix infection of the vermiform appendix might thus be met with under two forms —the one simple, the other in which a septic infection had been superadded. In the first the condition is difficult to distinguish from an ordinary case of appendicitis, but in the second the patients were often extremely ill, and rigors and septic pyelophlebitis, both rarely

seen in cases of ordinary suppuration about the appendix, seemed to be relatively common. These two forms of the affection were similar to what is sometimes seen when the disease occurs in other parts of the body, such as the cheek. Attention was called to the tendency of the abscesses which form to burrow, and point at a distance from the original seat of the disease, and a comparison made to what often occurs in the same affection of the lungs.

The question was raised as to whether the so-called secondary streptothrix affections of the liver were really conveyed thither by the bloodstream, or whether they were not really an independent infection from the alimentary canal; in one of the reported cases the discovery *post mortem* of a streptothrix abscess in the head of the pancreas was quoted as an argument in favor of the latter view. The points that would be likely to be of help in arriving at a diagnosis in the simple cases would be a long history of slight indefinite pain in the region of the appendix, a relatively large amount of induration, and, if operation were performed, the small quantity of broken-down material found; in suppurating cases the occurrence of rigors early, and the pointing of abscesses at a distance from the appendix region.

The treatment should be both constitutional and local. In the simple cases the best results follow removal of the appendix and as much of the affected surrounding tissue as possible, combined with treatment by large doses of iodide of potassium. The suppurating cases are more serious, and little benefit is likely to be derived from the use of drugs until the septic condition has been dealt with by ordinary surgical measures, and it was pointed out how exactly this coincided with what is experienced in dealing with the affection as it occurred in other parts of the body.

Reports on Tongue-like Accessory Lobes of the Liver, and Achylia Gastrica. By James Newell, Ph.B., M.D., M.Ch, of Watford, Ont., late Professor of Therapeutics in the Michigan College of Medicine and Surgery, Detroit, Mich.; late Physician to the Detroit Emergency Hospital; in *American Medicine.*

This malformation is also known as linguiform lobe, partial hepatoptosis, Riedel's lobe or appendicular lobe. My attention was particularly directed to the malformation by an article by Dr. Alex. McPhedran, of Toronto, published in the *Canadian*

Practitioner, June, 1896. These accessory lobes were first noted by Hzetl. Haller, Gruber, and Cruveilhier afterward described them. They are parenchymatous prolongations, and are thin, round, or tongue-shaped in form and variable in size.

They usually rise from the inferior surface of the liver and are connected to it by a pedicle containing "vasa aberrantia." The quadrote lobe is the seat of predilection.

Toldt and Zuckerkandl, of Vienna, in an article published in 1875, described their form and structure. Broca found them on both upper and lower surfaces in a microcephalic individual. Eichorst refers to malformations caused by tight lacing and Frerichs, in 1858, in his treatise on the liver, mentioned tongue-like processes due to malformation of the liver. H. Thompson, of Oxford, reported a case in 1885, and in 1889 he saw the processus caudatus separate in a fetus. Cecil H. Leaf, of Guy's Hospital, London, says these processes are atavistic, because they are often present in monkeys.

These tongue-like lobes are often quite movable, are often discovered accidentally, and may not be accompanied by any bad effects. They may seriously complicate the differential diagnosis of abdominal tumors, or cause symptoms closely simulating calculous cholecystitis and floating kidney. They may be mistaken, even after most careful examination, for omental tumor, tumor of the pylorus, distended gall-bladder, pancreatic cyst, or appendicitis. In connection with the latter I wish to report the following case.

Miss A., aged 16, while attending school in December, 1903, was taken suddenly with acute pain in the right side of the abdomen. In due time she made a partial recovery, but the soreness remained, with indigestion, and a general feeling of ill-health. I saw her first in April, 1904, and after a careful examination, not having discovered any evidence of an abdominal tumor, diagnosed chronic appendicitis of a mild type. I prescribed rest, proper diet, and intestinal antiseptics. She slowly improved, but her digestion was faulty, and there was some neurasthenia. In November, 1904, I performed an appendicectomy, making a McBurney incision. On introducing my finger into the abdominal cavity, I felt what I at first thought was a dislocated kidney. Having extended the incision upward, I brought to view a tongue-like process, two inches wide and three-fourths of an inch thick. It ascended and descended with the respiratory movements, careful examination showing it to be a tongue-like process having its origin from the right lobe of the liver. I had a long and tedious hunt for the appendix,

as the transverse colon was prolapsed, and down in the right iliac fossa, which very much complicated the search. Having found the appendix, I removed it, as it exhibited signs of having been inflamed. The patient made an uneventful recovery, and has improved so much in health and appearance, that I failed to recognize her about a month ago. As there is slight ptosis of the stomach, she still complains of some indistinct symptoms and slight uneasiness in the region of the incision.

I do not think this abnormality of the liver is of frequent occurrence, as I have never before met it in any abdominal section I have done or at which I have been present. Its occurrence in so young a person excludes tight lacing as a cause.

As the malformation is met mostly in those of mature years, its occurrence in this young girl adds interest to the case. I wish to acknowledge my obligations to my friend, Dr. Basil Harvey, Instructor of Anatomy in Chicago University, for his assistance in furnishing me with the history of this malformation.

Achylia Gastrica.

The following case of achylia gastrica, or atrophy of the stomach, may be of interest. It is a terminal of chronic gastritis, but is most frequently met in carcinoma of the stomach. Riegel in Nothnagel's Practice, says that total atrophy of the gastric glands may lead to serious disturbances of the general health, but that it has been demonstrated that a complete loss of peptic power may be tolerated for many years, without impairment of the general health, provided the motor power of the stomach remains intact, and the intestine can vicariously assume the functions of the stomach.

The patient was Mrs. M., married, aged 46, and the mother of one child. She was first seen by me in August, 1903. I found her thin, pale, and complaining of indigestion. She informed me she had had trouble with her stomach for the past five years, that she had little desire for food, vomited a greenish fluid frequently, and had at times considerable pain in the region of the stomach. On examination, I found the abdominal muscles tense and on guard, and that pressure over the stomach produced pain. Five years before, she had an attack of mucous colitis, which lasted for several months; I prescribed various remedies and diets, without much benefit. In November of 1903, I began lavage of the stomach, which for a while seemed to afford some relief. This was continued for months, but occasionally she would vomit quantities of the greenish fluid, which failed to give the reactions for bile. In August, 1904,

she became worse and refused to eat, and I began giving nutrient enemas. These soon disagreed, and she asked for their discontinuance. I called in Dr. F. R. Eccles, of London, and like myself, he thought she had cancer of the back wall of the stomach. There was now great emaciation, hardness of the muscles and absence of any tumor on palpation. I may say examination of the stomach contents showed absence of hydrochloric acid, but Uffelman's test gave the lactic acid reaction. Microscopically, yeast cells and micrococci were found and I thought I discovered the Oppler-Boas bacillus. She died of starvation on October 21st.

Autopsy was made by Dr. Wm. Reid four hours after death. The body was greatly emaciated, no fat in the abdominal walls, nor in the omentum, which looked like a net. The liver, gall-bladder and pancreas showed no sign of disease. The stomach was atrophied and in size no larger than the duodenum. There was no infiltration nor enlargement of the mesenteric glands. The walls of the stomach on section were found slightly thickened, the gastric mucosa was very red, and had a velvety look. The stomach was empty and its capacity would not exceed four ounces. The cardiac orifice admitted my finger. The pylorus was almost closed, admitting the tip of my little finger, which is rather small, on using considerable pressure. The transverse colon for about ten inches was atrophied and thickened, being about three-fourths of an inch in diameter. This was probably caused by the mucous colitis. While the walls of the stomach were sclerosed, I found no distinct evidence of cancer, and registered the cause of death as achylia gastrica.

This condition of atrophy of the gastric mucosa is said by Riegel to be by no means so rare as is ordinarily believed.

WHEN performing external urethrotomy without a guide it is often possible to trace the continuation of the urethra proximal to the opening, by means o a filiform bougie, even when all devices failed to secure the introduction of a filiform before the operation, If a filiform cannot be thus passed through the urethral wound. suprapubic pressure on the bladder may demonstrate the location of the urethral orifice by the escape of a drop of urine or by bulging of the membranous urethra.—*Am. Jour. of Surg.*

Therapeutics.

The Treatment of Ringworm of the Scalp.

The greatest living authority on ringworm is, beyond all doubt, Dr. Sabouraud, of Paris. He has devoted the better part of his dermatologic life to the study of the pathology, mycology and treatment of tricophytosis. He has recently introduced an invention of his own which enables the operator to not only employ X-rays with safety, but to measure their intensity and limit their use to one sitting in the cure of ringworm of the scalp. This variety has been acknowledged to be the most obstinate and refractory to all treatment, and competent authority has found from five to twenty sittings necessary to obtain a cure. In addition, there have been almost endless discussions in regard to the use of soft or hard tubes and the distance at which the tube must be used. Sabouraud solved the entire question by the discovery of a method by which the quantity of X-rays emitted from the Crook tube may be easily and accurately measured. In order to measure the quantity of X-rays emitted it is only necessary to observe the alteration in color, produced by the X-rays, in a disk of platino-cyanide of barium. When the disk, placed at a certain distance from the Crook's tube, assumes a fawn tint, which is called Teints B, and shown on the pattern supplied, the exposure must be stopped. By means of this device burns are avoided, and the advantage gained of curing a case in one sitting.—*Am. Jour. Derm.*

Ergotin in the Treatment of Chronic Prostatitis.

The condition known as chronic prostatitis has ever been a problem with genito-urinary surgeons, and they have devised many operations as well as mechanical methods of treating it, and this has naturally led to a certain amount of repugnance on the part of patients suffering from this condition. The microscopic anatomy of the prostate shows that it is largely composed of unstriped muscular fibres which are very analogous, if not identical, with those of the uterus. This confirms the old idea that the male prostate is what our predecessors were pleased to call the "male uterus." Therapeutic experiments have gone

a good way to confirm this view of the matter, but it has never been conclusively accepted by the authorities in genito-urinary surgery, who have preferred to look upon it as a glandular structure rather than as a muscular one. The researches have been mainly directed to the former contention rather than to the latter, which, in consequence, suffered some neglect. The writer, being somewhat inclined to embrace the latter doctrine, applied practically its teachings to the treatment of old cases of prostatitis, and, as a diminution in the size of the prostate and a consequent diminution in the amount of prostatic secretion was desired, he administered internally ergotin in three-grain doses as often as four times daily. This was found to exert a positive effect in the way of a diminution in the size of the prostate as well as a stoppage of the secretion of its mucus, all of which acted most favorably upon the *morale* of the patients. This method is one which has acted favorably in a number of cases, but it is not mentioned here as a certain and only cure. It is, however, worth trying, and if others find that they can confirm the findings of the writer it will certainly constitute a real advance in the treatment, not surgical, of old inflammatory troubles of the prostate.—*Am. Jour. Derm.*

The Treatment of Skin Disease.

The successful treatment of skin diseases may be truthfully said to be more than skin deep. In fact, cutaneous therapeutics is such a broad subject and encroaches so much upon general therapeutics that he who would aspire to be successful in the treatment of cutaneous affections must possess himself, not alone of a good knowledge of medicines and their therapeutic effects, but he must also know the toxic and untoward effects of drugs. In addition to these qualifications he must be able to formulate a scientific diagnosis, and for this purpose must have a good knowledge of microscopy and bacteriology. It may be objected that these qualifications are almost sufficient to constitute a medical Admirable Crichton. And yet all these are possessed by advanced dermatologists; and those who still strictly adhere to the teachings of the old school of Vienna, as formulated by Ferdinand von Hebra, are not as successful in the therapeutic results which are attained by others. One of the most essential factors in the attainment of successful results in the treatment of skin diseases is the mastery of pathogenesis of a process

which is observed. The application of a treatment *ad hoc* is always certain to be crowned with success.

For instance, the writer has observed a case of chronic intractable acne in an anemic girl, and upon close questioning learned that she had rectal obstipation. An aloes pill restored the color to her visage and caused the acne to disappear without any local treatment. A very simple means in an apparently obstinate chronic case.

The reason for the treatment was one which can be easily accounted for on a purely rational basis. The obstipation produced an absorption of the toxic matters in the rectum, which in turn affected the general circulation and glandular systems, thus bringing about the anemia of a general character and toxemia of the sebaceous glands.

This is merely mentioned as one of a very numerous class of dermatoses, and it will be found that the adoption of an analytic method in the determination of the causes of disease will not only facilitate the successful treatment, but hasten its ultimate cure. The secret is certainly not difficult; but, on the other hand, the carrying out of the investigation is rather inclined to be difficult.—*Am. Jour. Derm.*

Is Protiodide of Mercury Rightfully Popular?

There is no doubt that many will wonder that such a question should be raised. The real question at issue is whether mercury given by the mouth can be as efficient and reliable as when given by other means. No one will raise a doubt as to the efficiency of the hypodermic injections, be they of the soluble or of the insoluble salts of mercury. We are fully aware of the fact that the protiodide is very popular with the medical profession, and we also know that some prominent syphilologists claim to be able to cure syphilis by means of this salt alone, taken by the mouth. On the other hand, the vast majority of those prominent in syphilology refuse to endorse this position, and show their lack of faith in the virtues of this mercurial salt by using others. It has been a matter of observation with the writer to note that the protiodide of mercury is not, as a rule, an efficient drug in the treatment of men. On the other hand, it acts excellently well in the case of women; and hypodermic injections have acted better in both sexes. The protiodide used upon men is unfortunate in two respects. In the first

place it does not seem to possess sufficiently intense therapeutic properties; and, secondly, it is irritating to the gastro-intestinal mucosa. It readily induces diarrhea if employed in working doses, brings on gingivitis, and is prone to favor the formation of mucous patches. It is for these reasons that a certain amount of caution should be observed in prescribing the protiodide of mercury by the mouth. The favorite plan of Hutchinson of giving mercury with chalk is a much superior method.—*Am. Jour. Derm.*

BONE tenderness, especially of the sternum and tibiæ, is frequently significant of sepsis.—*Am. Jour. of Surg.*

ECZEMA of the breast should always be viewed with suspicion, for it may be a symptom of Paget's disease and precursory to cancer. In these cases the growth may for a long time appear as a superficial ulcer, and thus lead to errors in diagnosis.—*Inter. Jour. of Surg.*

IN chronic mastitis the existence of pain and swelling of the glands in the axilla often awakens a suspicion of cancer. If the affected area is adherent to the skin and muscles, with puckering, the diagnosis may be impossible before a microscopic examination has been made.—*Inter. Jour. of Surg.*

IN children suspected of having a foreign body in the larynx it will be generally found necessary to anesthetize the patient before a satisfactory laryngoscopic examination can be made, although in the presence of severe dyspnea no time should be lost in performing tracheotomy.—*Inter. Jour. of Surg.*

SUPPRESSION of urine in infants is extremely rare, and in any case in which the child is unable to pass its urine it is far more likely that there is some congenital source of obstruction. The existence of this should be determined by the prompt introduction of a soft rubber catheter.—*Inter. Jour. of Surg.*

IN cases of spina bifida in which the mass is small and the overlying skin not much atrophied, the protruding part may be reduced into the vertebral canal and prevented from returning by a a disc of pasteboard, cork, or celluloid, held in position by adhesive plaster and bandage.—*Inter. Jour. of Surg.*

Physician's Library.

Dr. C. Herbert Burnham's book on his combined treatment of the eye (9 chapters, about 100 pages), giving the origin, theory, action, and manner of application; with examples of different kinds of cases in which he has used it,—and these have a very wide range. But it is in the difficult and almost hopeless cases that Dr. Burnham has obtained such good results that he wished to let the profession know of its value. He has now had sixteen years of trial practice in its uses, and has long since decided that it is beyond the experimental stage. He emphasizes the great necessity of a fixed routine in its application. He uses hypodermics of pilocarpine and potassium iodide and mercury by the mouth, and considers the pilocarpine the more active for good, stimulating all the nerve centres to a remarkable degree, and through them the ordinary physiological processes; but especially those of the affected parts or organs are aroused to an activity far in excess of the normal, and thus the diseased condition is acted upon and removed. Quite a large portion of the book is taken up in citing difficult and interesting cases which he has cured or ameliorated. He throws out hints to the general practitioner also as to its uses in other than eye diseases, and asks that they should give it a fair trial. (Publishers: H. K. Lewis & Co., London, England.) C. T.

The Doctor's Recreation Series. Vol. III. In the Year 1800. Being the Relation of Sundry Events Occurring in the Life of Dr. Jonathan Brush during that Year. By SAMUEL WALTER KELLY, M.D. The series, XII. volumes, all now ready. Edited by CHARLES WELLS MOULTON. Akron, Ohio: The Saalfield Publishing Co.

This is a very interesting recital. Indeed, it is quite a romance. It is remarkable as occurring all in a year. It practically opens with a doctor falling in love with a lady *enciente,* who has engaged him to attend her *accouchement.* Just before that event arrives she is most foully murdered, *a la* Whitechapel Jack the Ripper style: a victim to the law of primogeniture. Taking what might be called a post-graduate course in Phila-

delphia, the doctor meets a younger sister,—and as it all occurs in one year,—he immediately falls in love with her. The villain is on the scene here too; but the yellow fever gets both doctor and villain in its clutches and helps wonderfully in the *denouement*. There is a decidedly interesting letter by Dr. Benjamin Rush on Insanity, showing the trend of thought in 1800 in Psychiatrics. Dr. Physick is also brought in. The narrative, although disconnected here and there, keeps up interest and attention quite easily from start to finish. Lord Ashburton figures in the story as a Mr. Baring. We have already noticed volumes I. and II. in these pages. Each month will follow a short review of the remaining nine volumes. The entire set is well worthy of a place in every doctor's library.

Blakiston's Quiz Compends. A Compend of Genito-Urinary Diseases and Syphilis, including their Surgery and Treatment. By CHARLES S. HIRSCH, M.D., Assistant in the Genito-Urinary Surgical Department, Jefferson Medical College Hospital. Illustrated. Philadelphia: P. Blakiston's. Son & Co. Price, $1.00.

Medical students will find in this small volume of 351 pages a fine epitome of the subjects stated. Practitioners will find that the diseases are tersely treated of, as all unnecessary details and rare conditions are omitted. The treatment part of the book is that recognized by eminent men in these departments and that used by the writer and his colleagues in the Jefferson Medical College Hospital.

A Practical Treatise on the Office and Duties of Coroners, in Ontario and the other Provinces and the Territories of Canada, and in the Colony of Newfoundland, with Schedules of Fees and an Appendix of Forms. Fourth edition. By WILLIAM FULLER ALVES BOYS, LL.B., Junior County Court Judge, County of Simcoe, Ontario. Toronto: The Carswell Company, Limited, Law Publishers, etc.

Wherever, in medicine or out of it, many means are advanced for meeting the same indication, we are safe in concluding that no one of the series is quite satisfactory. *Per contra,* where universal approval is given to a single method, it is sure to be all one can reasonably desire. As illustrating the first of these, the treat-

ment of whooping cough, or of fractured clavicle can be mentioned, while for the second the mixed treatment of specific disease will suffice. We can apply the same rule to books bearing upon medical practice. Judge Boys' excellent work has been for a generation the one authoritative and all-sufficient book of reference upon the subject of coroner's law in Canada. So well has it in its successive editions occupied the field that there has been no need for any other publication along similar lines. One can go further than this, and claim that in no country where the English language is spoken is there to be found a treatise upon the coroner's court anything like its equal. In our country no one charged with the responsibility of investigating violent or suspicious deaths can afford to be without a copy of this clear and scholarly manual. N. A. P.

Elements of Practical Medicine. By Alfred H. Carter, M.D., M.Sc., Fellow of the Royal College of Physicians, London; Professor of Medicine, University of Birmingham, etc., etc. Ninth edition. London: H. K. Lewis, 136 Gower Street, W.C. Price, 10s. 6d.

That this must be a popular book, we would think, amongst medical students in England, is evidenced by the fact that the present is the ninth edition. It is elementary, of course, but thoroughly practical. The text of this volume has been thoroughly revised, many sections have been entirely re-written, and here and there some few additions made. Canadian medical students will find in this book a compact treatise, especially valuable in reviewing for examinations.

The Technic of Operations on the Intestines and Stomach. By Alfred H. Gould, M.D., of Boston, Massachusetts. Octavo volume containing 190 beautiful original illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company. 1906. Cloth, $5.00 net. Half morocco, $6.00 net. Canadian agents, J. A. Carveth & Co., Toronto, Ont.

The author of this work has collected certain of the standard operations upon the stomach and intestines which he has studied during three years of research work. The opening chapter deals

with the repair of intestinal wounds. This process is described in detail and illustrated with seventeen reproductions of microscopical drawings and three drawings. The second chapter is devoted to knots, sutures, needles, clamps, and a description is given of a method of tying a knot with two hands and another of tying with one hand. There are minute directions for introducing the sutures, and the whole is profusely illustrated. Following this is a chapter on the anatomy of the intestines and intestinal localization. The next part is devoted to operations on the small intestine, and the last to operations on the stomach. The descriptions of the various operative procedures are most minute and clear, and do not leave a possibility of a misunderstanding. The illustrations of these parts are accurate and beautiful and include seven colored plates from Sobotta's "Atlas and Text-Book on Human Anatomy," which are introduced to illustrate certain important surgical landmarks. The book contains 302 pages. It is well bound and is printed on excellent paper, and the mechanical work has been admirably executed. The author is to be congratulated on his excellent work. W. A. S.

The Physician's Visiting List for 1907. Philadelphia: P. Blakiston's Son & Co.

This most useful little pocket visiting list again makes its appearance—its fifty-sixth, by the way—which speaks volumes for its worth. The price is one dollar.

CHCL3—Problem. By Richard Gill, B.Sc., M.B., B.S., London University, F.R.C.S., England, Chief Chloroformist to St. Bartholomew's Hospital. Edinburgh and London: Wm. Blackwood & Son.

We have looked over these two volumes carefully. It is rather out of the line of the ordinary text-book, not only in its arrangement, but also in its general reading matter. The preface and introduction make hard reading. Every phase of the chloroform problem is very fully and very ably discussed. The quality of chloroform, the parts on which it acts, with original interpretations of the observed phenomena, both normal and abnormal, are fully discussed. The method of administration to produce anesthesia and avoid narcosis is excellent. Altogether it is a splendid analysis of a very difficult proglem, and one well worthy the careful study of anyone interested in chloroform anesthesia. D. M. A.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enrol themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

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The Association expects and hopes for the united support of the profession.

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And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

Beginning our fourteenth year of publication we have much pleasure in wishing all our readers a happy and prosperous New Year.

The visit of Dr. Osler, in December, to Toronto and Montreal was a very pleasant holiday item to the medical community of our two leading cities. At Toronto, the medical faculty had the pleasure of meeting Dr. Osler at Dr. Reeves', The Ontario Medical Library, and the Toronto Medical Society. At the latter he spoke for an Academy of Medicine for this city; the amalgamation of the three medical societies, the Clinical, Toronto Medical, and Pathological—something which was being considered before his arrival. At the Ontario Medical Library he unveiled a painting of the late Dr. J. E. Graham, of this city, and gave a characteristic address on the life-work of that former leader of medical

thought and work in Canada. The portrait was a gift to the Library by the widow and son, Dr. J. S. Graham.

The prevalence of typhoid fever in Ontario is something which will, no doubt, tax the capabilities of Ontario's new Board of Health. That there were one hundred and thirteen deaths from this disease out of a total of 1,500 cases treated in one month—November—is a condition of affairs which calls for very active work. Some one has recently said that food, fingers and flies is the alliteral tripod upon which the propagation of typhoid fever rests; and that every case of typhoid fever is a crime of the State against the individual. If health bodies are to prove themselves, they must grapple with this subject in dead earnest.

Asylum is a word, as applied to hospitals where patients with mental diseases are admitted, which should rapidly become obsolete. In this connection we note a new and important departure in the Toronto Provincial Hospital. A specialist in pathology has been appointed as clinical director and pathologist, who will devote his entire time to this work. The appointee is Dr. J. H. Fitzgerald, who, after being graduated from Toronto University, has done special study in the neurological and psychological clinics of Johns Hopkins and in the Sheppard and Enoc-Pratt Hospitals. Himself an advanced and progressive alienist, Dr. C. K. Clarke, the superintendent, takes a decided move forward in the study and propagation of psychiatrics in Ontario by securing this appointment. It is fitting this should be inaugurated in the Toronto Provincial Hospital.

Our editorial comment in December issue advocating the medical inspection of schools in Toronto has been productive of a splendid paper, which will be found in this issue, from the pen of Dr. Frank Allport, Chicago, who for ten years has taken a very great deal of active interest in the eyes, ears, noses and throats of school children. It will be sure to be read with great profit by those of our Canadian readers who favor the medical inspection of schools in this country. The whole subject is such a very important one that we commend it, especially now, to the Committee on Papers and Business of the Ontario Medical Association. It is not alone a civic one, but appeals to the Provinces, which have control of our educational matters.

The Ontario Medical Association: The Commitee on Papers and Business for the current year is composed of the following members, under the chairmanship of Dr. D. J. Gibb Wishart: Drs. Ingersoll Olmsted, Hamilton; N. W. Woods, Bayfield; W. J. Bradley, Ottawa; A. F. Tufford, St. Thomas; Angus Graham, London; and H. B. Anderson, R. D. Rudolf, J. S. Hart, T. F. McMahon and F. N. G. Starr, of Toronto.

It is proposed to reinstate the plan of sectional meetings at the next annual gathering, which will be held a week earlier than usual—May 28, 29, 30, 1907.

The committee have secured the promise of Dr. Crile, of Cleveland, to deliver the address in Surgery. Dr. Crile is the Professor of Clinical Surgery at the Western Reserve University. It is proposed to secure, if possible, some prominent physician of the United States to give the address in Medicine. While it is impossible to speak definitely as yet, it is hoped that we may have with us one of the English physicians who will attend the meeting of the American Medical Association, which will open a few days later at Atlantic City. The committee has partially drafted a programme which will surely interest every physician of the Province.

The associations for the prevention and treatment of tuberculosis in Canada do not appear to secure either the political or the public heart aright. The public is more or less lackadaisical; the politicians would rather look after the welfare of cattle affected with tuberculosis, or chickens with pip, than human beings. In interviewing the heads of the federal government quite recently, the National Association did not seem to get a very favorable response to their request that the Government should this year increase the annual grant to the Association from $2.000 to $5,000. All the sympathy the delegation got from the Finance Minister was that he would speak through the medium of the estimates. In British Columbia, Dr. Fagan has for a long time been trying to raise $100,000 for the purposes of a provincial sanatorium. The task is so hard that a less strenuous and progressive officer would be likely to give up in despair and disgust. One cannot but ask the question: Does the public appreciate the efforts of preventive medicine?

Another phase of the ever occurring tuberculosis problem is presented by the Toronto Board of Trade which is bringing its influence to bear on the Dominion Government. It

is charged that nearly fifty per cent. of the patients treated in the consumption sanatoria are importations, and that they are a very undesirable class of immigrants. Grant that; but even so, it scarcely follows that the inspection of immigrants is thereby lax. The point we wish to make, however, here is that governments are vastly concerned in making a good showing. Now, if it were a question of admitting diseased cattle, what a hurrying and a scurrying there would be on the part of every government official! Keep the cattle free and untainted. Let the human look out for himself.

The Dominion Parliament is going to wrestle with a patent drug law during the present session. It is impossible, of course, to forecast the outcome. In this connection, however, we may remind our readers that on the 1st of January, 1907, the Federal Food and Drugs Act went into force in the United States. This law's prime feature is that manufacturers are held responsible for the truth of statements on all labels. Amongst the drugs named, which have to have their exact proportions on labels, are alcohol, morphine, opium, cocaine, heroin, alpha or beta cocaine, chloroform, cannabis indica, chloral hydrate and acetanilide, or any preparation or derivative thereof. This law will, no doubt, result in the correction of many abuses which formerly held sway, and takes a good reef in the sail of nostrum manufacturers.

In the proposed re-organization of the Canadian Medical Association the essential principle is the establishment of a national medical society, which shall bring into its fold as affiliated societies all the present existing medical societies in Canada, and in every sense to provide for its conduct and management by representatives of these, and from the national body itself. Once that is accomplished, the governing body, or Executive Council, will be truly representative of the united medical profession of Canada. The establishment of an official medical journal is a subsidiary question, even though our esteemed contemporaries, the *Montreal Medical Journal* and the *Canada Lancet,* consider the journal question the paramount one. When the executive council names a Finance Committee, in whose hands it is proposed to rest the management of a journal, it will most likely name a committee that will conduct the establishment of a journal to a successful issue. The prime thing to do is to start right in the right place.

News Items.

Dr. P. C. Woodworth, Wolfville, N.S., has removed to Arizona.

Dr. J. J. Wilson, a graduate of McGill, is dead at Arbosso, Africa, aged 29 years.

Mr. Cawthra Mulock has donated $10,000 to the Hospital for Sick Children, Toronto.

The death of Dr. Charles F. Campbell, of Springhill Mines, N.S., is announced, at 84 years of age.

There were reported in Ontario in November 1,242 cases of contagious diseases, with 310 deaths.

The death of Dr. John Macdonald, Chatham, N.B., is announced. Deceased was 56 years of age.

The total deaths from all causes in Ontario in November were 2,010, or 70 less than in November, 1905.

The Montreal League for the Prevention of Tuberculosis is pushing urgently for the establishment of a sanatorium.

In the four faculties at Queen's University the students number 1,100, and there are about 200 extramural students.

Major Alex. N. Hayes, M.D., Sarnia, Ont., becomes a Lieutenant-Colonel, *vice* Colonel Ryerson, transferred.

Dr. R. R. Gareau, a prominent medical man of Detroit, Mich., native of St. Roch, Que., is dead, aged 52 years.

Medical Directory of Toronto and Suburbs.—We are advised by Theo. E. Gibson & Co. that they have taken over this publication, and that the issue for 1907 is now in press. We have no doubt that, in the hands of the present publishers, the value of the Directory will be fully maintained.

Dr. B. S. Price, St. John, N.B., has been appointed Professor of Clinical Surgery and Physiology in Kansas City University.

Lieutenant-Colonel and Hon. Colonel George Sterling Ryerson, M.D., Toronto, has been transferred to the reserve of officers.

Lieutenant-Colonel Carleton Jones, M.D., Halifax, has been appointed to succeed Col. Fiset as Director-General of Militia.

Lieutenant-Colonel A. B. Osborne, M.D., Hamilton, has been transferred to the reserve of officers in the Army Medical Corps.

Dr. Wright has resigned his position as physician to the House of Refuge, at Beeton, and is succeeded by Dr. Brewster, of that village.

Dr. W. C. Brown, of Queen's University, who has spent the past six months in the General Hospital, Toronto, will open an office in Lakefield.

The Toronto Board of Trade protests to the Dominion Government that immigrants are brought into Canada already the victims of tuberculosis.

Dr. J. M. Fawcett, of Mount Forest, has sold his practice, and, after spending a short time with relatives in Drayton, will go to Sault Ste. Marie.

Dr. J. D. Cameron died in Montreal on the 4th of January, of typhoid fever, aged 38 years. He was graduated from McGill University in 1893, and after a year in the Montreal General and Royal Victoria Hospitals, commenced practice in Montreal. He was assistant gynecologist at the Montreal General Hospital at the time of his death.

It is reported that in the first week in January there were about 1,000 cases of typhoid fever in Montreal and the immediately surrounding municipalities.

THIRTY-THREE cases of typhoid fever were reported in Toronto for the first twenty-four days of December, 1906.

LIEUTENANT-COLONEL GEO. A. PETERS, M.D., Toronto, has resigned from the command of the Toronto Light Horse.

DR. G. A. L. PAYNE, a graduate of McGill in 1906, died in Montreal on the 4th of January, aged 27 years, of typhoid fever.

DR. ERNEST A. HALL, Victoria, B.C., is a candidate to represent Victoria in the interests of the Canadian Labor Party, in the Legislature of British Columbia.

LIEUTENANT-COLONEL H. S. BIRKETT, M.D., A.M.C., Montreal, has been appointed principal medical officer of the Quebec command, *vice* C. W. Wilson, M.D., Montreal, resigned.

PROF. ERNEST RUTHERFORD, of McGill University, has been appointed Langworthy Professor and Director of Physical Laboratories at Manchester University, England.

DR. J. O. TODD, Winnipeg, after spending some weeks at the hospitals of Chicago and New York, will then proceed to London, England, and the leading Continental hospitals.

THE courts have ordered the Ontario Medical Council to replace the name of Dr. Alex. Crichton, of Castleton, Ont., removed some months ago for alleged unprofessional conduct.

PROFESSOR OSLER has been appointed by the British Science Association a member of the sub-committee to consider the influence of the weather on the virulence of smallpox infection.

DR. TAIT MCKENZIE, of the University of Pennsylvania, was present at the formal opening of the new gymnasium at Queen's University on the 12th of January.

DR. R. E. MCCONNELL, a graduate of McGill University, is at present visiting his father, Dr. J. B. McConnell, Montreal. Dr. McConnell has been on the West Coast of Africa for two years, studying blackwater fever, at the instance of the Liverpool School of Tropical Medicine. He will return to West Africa.

Dr. Geoffrey Boyd, 167 Bloor Street East, Toronto, has retired from general practice, and will hereafter devote himself to special work in nose, throat and ear.

Dr. James Henderson, one of Cobourg's best known practitioners, was struck and instantly killed on December 21st, at the Grand Trunk Railway crossing. He had spent the greater part of the night in the country attending one of his patients who was very ill, and on his way home, after having missed his night's sleep it is supposed that he fell asleep in his cutter and did not notice the train.

Deer Park Sanitorium, Limited, Deer Park, Ontario. —On January 5th, 1907, the Deer Park Sanitarium was formally opened for business. This institution offers first class accommodation for fifteen patients. It is a strictly up to date Private Hospital, well heated, airy and light. A large sixteen plate "Waite and Bartlett" Static Machine, also "Massey Cabinet" will be installed for giving Electric treatment.

News has been received of the death, at Sutton, England, on the 10th of December, of Dr. Charles Neville. His wife, who is now in England, was Miss Beatrice Hatheway, of St. John, N.B. Dr. Neville was for many years a physician in the employ of the Allan Line, and was for a long time doctor on the steamship *Parisian*. He had many friends in Canada among the travelling public, and was particularly well known in Montreal.

The Ottawa Medico-Chirurgical Society meets on the first and third Fridays of each month in the Carnegie Public Library lecture-room. The following programme has been arranged: Jan. 3rd, Annual Dinner; Jan. 18th, Clinic at Water St. Hospital; Feb. 1st, Paper—"Some Points in the Practice of Obstetrics," by Dr. R. Chevrier; Feb. 15th, Clinic at Rideau St. Hospital; Mar. 1st, Discussion—"Acute Specific Urethritis," by Drs. O'Brien, Whitton and F. McK. Bell; Mar. 15th, Annual Meeting. Cases and specimens for exhibition or case reports will be gladly arranged for any meeting by the president or secretary. The officers for 1906-7 are: Hon. President, Sir Jas. A. Grant; President, Dr. W. I. Bradley; 1st Vice-President, Dr. J. L. Charbot; 2nd Vice-President, Dr. E. B. Echlin; Secretary, Dr. C. H. Brown; Treasurer, Dr. Thos. Gibson; Curator, Dr. Robt. Law; Librarian, Dr. T. H. Leggett; Council, Drs. Small, Klotz, Argue, I. G. Smith, Lambert.

Before the members of the Ottawa Medico-Chirurgical Society, on December 7th, at the Carnegie Library, Dr. Burgess, superintendent of the Protestant Hospital for the Insane, at Verdun, gave an exhaustive and instructive paper on "The Family Physician and the Insane." Dr. Burgess has made a life study of the brain, and is considered an authority on this, especially throughout Canada. He referred to the wrong public practice that attaches a stigma to families in which there is insanity. It was no more disgrace to have disease of the brain than disease of the lungs, or any other organ of the body. It comes to families of all stations of life, the highest and the lowest. He said that it was the duty of the general practitioners to do all in their power to crush out this unfair belief. He said that in former years the study of the brain was not included in the curriculum of the studies of the general physician, but that it was a very wise change when it was made a part of the medical man's study, instead of leaving it entirely to the specialists. The general practitioner could do much in guarding families in which there are erratic tendencies. He pointed out that children of such parentage should not be highly educated and should follow an outdoor occupation. Regarding sending patients to hospitals for treatment, he said that in nearly every case it was better to send the patient to the hospital. It was at least necessary that the insane person should be taken to new surroundings. He gave an extensive explanation of making out applications for admittance to asylums, which are often done very incorrectly by the physicians. He spoke of the proper methods to be employed to promote sleep, and said that drugs should only be used as a last resort, and then should be changed often to prevent the patient from acquiring the drug habit. He pointed out that in many respects the laws in Quebec regarding the admittance of patients into an asylum were much superior to those in force in Ontario. He had been written to by Ontario authorities, and he believed that shortly there would be many changes in Ontario's laws in this respect. Dr. Chabot, acting president of the society, presided, and a vote of thanks was tendered, moved by Dr. Cousens, seconded by Dr. Scott. In replying, Dr. Burgess said that it would be a great advantage if the name asylum was changed to hospital for the treatment of mental diseases. He said that there was no restraint used with patients in asylums now.

Publishers' Department

FISHING AND SHOOTING.—A new region, known as the "Temagami" (pronounced Tem-mog-a-me) District, is being brought to the notice of the public as one of the finest fishing and hunting confines in Canada. Excellent sport is assured all who take advantage of a trip to this magnificent territory which is 300 miles north of the city of Toronto at an altitude of 1,000 feet above the sea. Black bass, speckled trout, lake trout, wall-eyed pike and other species of fish are found here in abundance, and large game such us moose, caribou and deer abound in the forests. A handsome booklet, profusely illustrated, giving all information, including comprehensive maps, can be had free on application to J. D. McDonald, D.P.A., Union Station, Toronto

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PNEUMONIA FOLLOWING STAB-WOUND.—On January 11th, 1905, Mr. C., aged 20, was stabbed in the back below the scapula, and when I saw him twenty minutes after the affray, he was suffering from profound shock. I carried out the usual operative procedures, and the patient rallied, doing well until the night of the eighth day, when he had a severe chill, presaging pneumonia. I feared a fatal result, as the left pleural cavity contained considerable bloody serum, and immediately applied a thick dressing of *Antiphlogistine*, 10 inches wide, from the spinal column to the median line, in the front, and kept up this treatment for three weeks, changing the dressing every morning. By this time the lung was perfectly clear, and there was no further use for the external application. The *Antiphlogistine* was covered by a cotton jacket and held in place by a cloth bandage. The pain was relieved by hypodermics of morphine and atropine, and the heart was sustained by strychnine. Outside of a little calomel and some laxatives, there was no other treatment. I aspirated the pleural cavity and drew off the serum. In view of the complications in this case, I consider it rather remarkable that the patient made so excellent a recovery. It only confirms my high opinion of the remedial value of *Antiphlogistine*.—*J. A. Davis, M.D., of Norman, Oklahoma.*

SALICYLATES act at least in two ways in the body. In the case of acute articular rheumatism, in which they are supposed to exercise a specific influence, they probably act deleteriously upon the micro-organism which is responsible for the malady, whereas in the case of chronic rheumatism or gouty conditions depending upon diathetic states they produce some influence upon metabolism or the oxydization processes in the body which we do not understand, but of which we are therapeutically certain. It is of the greatest importance, therefore, that the salicylic acid administered should be from natural sources, and not the synthetic product. Physicians can rely on the fact that all the salicylic acid in Tongaline is made from the pure natural oil of wintergreen, and that it does not possess the disturbing effects of the salicylic acid made from coal tar.

A PHYSICIAN makes the following statement: "I consider Tongaline far superior to any preparation for rheumatism, neuralgia, grippe, gout and similar complaints, and it has given me such uniform satisfaction that I rely on its action most implicitly. I was first impressed with the unusual merits of Tongaline by the great benefit which my wife derived from its use, and this was all the more remarkable because she tolerates salicylates in any other form very poorly, but whenever she feels the first symptoms of rheumatism the attack is at once controlled by taking Tongaline for a very short time."

HEMORRHOIDS.—Without any comment on the nature, causes, varieties or pathological conditions found existing in rectal ailments, I will transcribe from my records two cases of hemorrhoidal troubles that I have treated within the last two years with Glyco-Thymoline. Case 1.—Mr. B. O. H., aged 29, had been ailing several years with what he called piles. A careful examination revealed the following condition: On the margin of the anus were three strangulated tumors about the size and color of a Concord grape. On continued pressure the tumors would empty themselves almost entirely, but refill again in the course of an hour. Several similar tumors about the size of a pea were found just inside the sphincter. Anal moisture and pruritus were very troublesome, but, singularly enough, little pain was

complained of. The bowels were somewhat constipated. Regulated the diet and secretions, gave an enema of two ounces of a fifty per cent. solution of Glyco-Thymoline every night and morning quite warm, held in till absorbed, and applied gauze to anus on lamb's wool during the night and as much of the daytime as he could spare from the office. A decided improvement was noted in a week, and three weeks later he was cured. That was nearly two years ago, and there has been no trouble since. Case 2.—Mrs. R., consulted me regarding "bleeding piles," which had been gradually growing worse for three or four years. At every stool she would bleed two or three tablespoonfuls. She had become quite anemic. No external tumors. A corroding ulcer as large as a nickel was diagnosed just inside of the internal sphincter. Washed out the rectum three times a day, at first with a warm solution of boric acid, and then gave an enema of one ounce of Glyco-Thymoline, full strength, hot, held in until absorbed. After four doses only two enemas a day were used, as no blood was passed. At the end of two weeks' time a careful examination of the rectum showed it to be perfectly normal. She was cured. No return after eight months.—*Elmore Palmer, M.D., Buffalo, N.Y., ex-President of the Western New York Medical Society.*

The Management of Convalescence.—In convalescence from acute diseases, such as pneumonia, typhoid fever, acute articular rheumatism, etc., we are face to face with the problem of restoring the weakened organism to its normal condition. *The blood shows a state of secondary anemia,* the nutrition is lowered, the nerve and muscular tone is below par; the appetite but sluggishly answers our urging, and the digestive powers feebly respond to the demands made upon them. It is at the dawn of convalescence, when the danger of the illness itself has passed, when the desire to live, to get strong, is highest in the patient, that the physician's reputation often hangs in the balance. Having brought the patient through an illness, many physicians are unfortunately content to rest on their laurels, and to let long-suffering "Nature" do the rest. The wise practitioner, however, knows that Nature is grateful for the proper kind of aid in these circumstances,—aid in her efforts to lead a weak organism out of the bondage of illness. And so, the far-seeing physician will look about in his armamentarium for a drug or a combination of drugs which will restore the blood, the nutrition, the

digestion, the assimilation, the appetite, the weight, and the powers of resistance of the sufferer to normal, in the quickest possible time. Fortunately, nature has provided two chemical elements, iron and manganese, which are as necessary to the system as life itself, and which, when given in the proper amounts and in the proper forms, will carry the patient through convalescence to health. In the delicate state of the digestion of a convalescent it is of the utmost importance that the forms of iron and manganese administered be such as to become absorbed and assimilated with the least disturbance of the gastro-intestinal organs. The old-fashioned inorganic preparations of iron which still figure in the Pharmacopœias of various countries are totally unsuited for this purpose. The scientific researches of Hamburger, Bunge, and others, conducted during the past twenty-five years, have shown the immeasurable superiority of the organic compounds of iron and manganese. The organic compounds alone have been found to be absorbable in such amounts as to produce the desired action on the blood. Of these compounds, the peptonate, which is an organic-chemical combination of iron and manganese with peptone in solution, known as Pepto-Mangan (Gude) is the most readily absorbed, and therefore the most efficient preparation of iron-manganese known, and as such is used with the greatest benefit in convalescent anemias. A point which is frequently lost sight of in considering the treatment of anemia, is the importance of manganese as a constituent of normal blood, and as an element ranking only next to iron in its power of building blood corpuscles and increasing the life-bearing hemoglobin of these cells. Campani, an Italian savant, as early as 1872, demonstrated that manganese is found in the red blood cells, as well as in the serum of normal blood, and the more recent researches of Lecanu and Lhéritier show that manganese forms a constant constituent of the hemoglobin molecule. Furthermore, Zaleski (Zeitschr. f. physiol. Chemie, 1904, p. 449) showed that manganese enters the molecule of hemoglobin with the same readiness as does iron, and therefore it has the same blood-forming power as iron. But perhaps the most important fact in connection with manganese

is that, once having entered the red cell, it attracts iron to the coloring matter of the blood, as the recent investigations of Benedetti have shown (Boll. Scienc. Mediche, Bologna, June, 1905). A consideration of the above facts will convince any unbiased physician that the preparation known as Pepto-Mangan (Gude) is made on scientific principles, in accordance with the researches conducted by the foremost physiologists and clinicians within the past quarter of a century. It contains a combination of iron and manganese calculated to secure the highest possible bood-building efficiency without in the least interfering with the digestive functions. On the contrary, Pepto-Mangan is an excellent digestive tonic, it increases the appetite and promotes nutrition. Pepto-Mangan (Gude) therefore offers in convalescence the surest, most agreeable and most prompt road to perfect health.

The Canadian Medical Exchange, conducted by Dr. W. E. Hamill, Toronto, Medical Broker, for the purchase and sale of medical practices and properties, handles this class of business from the Atlantic to the Pacific, and has done so for the past twelve years. The majority of the medical sales in Ontario have passed through his hands, and many from the Maritime Provinces and the great North-West, hence we advise our readers, whether they be buyers or sellers, in whatever part of Canada they may reside, to take advantage of such an important central depot for this class of business, which is a very important department of medical affairs and is a specialty in itself. Many prospective purchasers are registered with him, to be piloted into opportunities to buy a medical practice, and vendors will find a short-cut to the goal desired.

Antikamnia and the New Pure Food and Drug Act.—Our readers will note from the new Antikamnia advertisement, which appears in this issue, that The Antikamnia Chemical Co. was prompt to file its guaranty under the new Pure Food and

THE SANITARIUM

1850 ═══ Clifton Springs, N.Y. ═══ 1906

THIS popular Sanitarium, with its able corps of Physicians, Nurses, and attendants, and over fifty years' experience in meeting the needs of its patrons, has won a world-wide reputation for thorough and systematic work, the results of which have been very beneficial and satisfactory. The bathing and treatment facilities here are unexcelled by any in this country.

Send for Illustrated Booklet "D," giving rates and other particulars.

No Insane or Tubercular cases received.

SCOTT'S EMULSION

Of Cod Liver Oil has been prescribed for thirty years by the best physicians because they know it will PRODUCE THE BEST RESULTS

PHYSICIANS know it is made of pure Norwegian oil, pure hypophosphites of lime and soda, pure glycerine. They know there is not a drop of alcohol in *Scott's Emulsion.* They know it is not a "tasteless preparation" of cod liver oil. They know the whole oil is there, not vitiated by wines and other harmful ingredients that rob the oil of its virtue and the patient of needed nutriment.

SCOTT'S EMULSION IS AN ABSOLUTELY SAFE PRESCRIPTION. ITS RESULTS ARE SURE

Drugs Act, their guaranty number being 10; which means that of all the food and drug manufacturers in the United States, only nine filed their guaranty in Washington before that of The Antikamnia Chemical Company. This shows the usual Antikamnia disposition to protect the dealer and prescriber of Antikamnia under the law.

We are in receipt of a neat, framed photograph of "The Antiphlogistine Girl," representing a handsome trained nurse in regulation garb, in the act of dipping the well-known spatula into the equally well-known pot of Antiphlogistine. The picture represents good taste in the Denver Chemical Company.

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Original Articles.

LIFE AND WORK OF LOUIS PASTEUR.*

By W. T. Connell, M.D., Kingston, Ont.

A study of the lives of the Masters in Medicine or allied sciences is, and ought always to prove, interesting and inspiring to the student of medicine, and the life of Pasteur when so studied will be found to abound in interest, be highly instructive and full of inspiration, especially to those who possess the true scientific spirit. In the course of my inaugural address, delivered in October, 1896, before the Medical Faculty and students of this college, I stated that "the man to whom more than all others we owe experimental medicine is Louis Pasteur. To him we owe our present-day science of bacteriology, for he first indisputably established the microbic causation of many diseases. In fact, Pasteur's discoveries have not only widely extended the boundaries of physico-chemical and biological science, but have been the means of practically revolutionizing medicine and surgery." The Life of Pasteur, as presented by his son-in-law, Vallery-Radot, is one of the most interesting and entertaining books it has been my good fortune to read for some time. I cannot hope to present the subject in any such manner as it is found in his volumes, but will attempt to shortly sketch for you his life and his work, looking at the latter from the medical viewpoint.

Pasteur was born at Dole, in Jura, in 1822, his father, Jean

*Annual Medical Faculty Lecture in connection with the History of Medicine, Convocation Hall, December 5th, 1906. Published synchronously with *Queen's Medical Quarterly*.

Joseph Pasteur, being a tanner and an old soldier of the Empire. He was a man of fair intelligence, of sound common sense, fully cognizant of the value of education, and who made every effort to secure to his son that education which had been denied himself. Shortly after the birth of Louis the family settled in Arbois, taking charge of a small tannery there, and here Pasteur attended the local college, passing through from the primary grades. The work done at this college would about correspond to our public and high school courses. According to the accounts of his fellow pupils Pasteur showed no exceptional brilliancy at school. He was but an average pupil, he worked carefully, even if slowly, and gradually mastered his subjects. He carried this careful conscientious system of study throughout his entire life, and it has often been remarked of him that he never affirmed anything of which he did not feel sure and was able to back up by careful reasoning. At school he showed a taste for portrait drawing, but this he did not afterward cultivate. At the age of sixteen he had mastered all that was then taught in the local college, and he went to Paris, but only stayed a few weeks, as he suffered so severely from homesickness that his father had to come and take him home. He then went to the college at Besancon, which was some forty miles away, where he could occasionally see his father, as it was the main market place for the tannery. There were some good teachers in Besancon then, and they awakened in him some enthusiasm for study, and especially for general science. In two years he had taken his "Bachelor es Lettres". The work required for this degree would not more than equal the first two years of our Arts course. His standing was only fair, but his careful conscientious work recommended him to the authorities, and he was retained as a preparatory master and given an opportunity to continue his science work. In his twentieth year he went up for his "Bachelor es Sciences' before the Dijon Faculty and secured it, but was marked "mediocre". His ambition at this time was to enter on the science side of the Ecole Normale, which was an institution at Paris for training professors. After a course of three or more years therein the government would appoint those passing the usual examination or "agregation" to various positions in the local colleges or provincial faculties. (In France, practically, the whole school system is under central government control and appointments to higher grade schools lie largely, or did in Pasteur's time, in the central government). Pasteur, then nearly twenty years of age, came to Paris to take the entrance examination at the

Ecole Normale, and stood fifteenth out of twenty-two candidates. He did not enter, but decided to spend a year in further preparation, so as to secure a higher average standing on entrance. He spent this year in general study and attending the "open" or popular lectures then given and which are still given by the Paris professors. It was here that, in listening to the lectures of the noted chemist, J. B. Dumas, he became fired with enthusiasm for this subject and ever after was pleased to call Dumas "Master." At the end of the school year, 1843, when in his twenty-first year, Pasteur again took the entrance examination, ranking fourth. I am certain that the great majority of students would have been content with the rank of fifteenth rather than spend an added year for the honor of taking a higher entrance rank. This in itself gives us a good indication of the character of Pasteur. Thoroughness of preparation, patience in carrying on work and steady perseverance in it, mark him at this time and throughout his later life. It was at this time he adopted as his motto "Laboremus" —"let us work," for Pasteur believed thoroughly in work, and that work was and is the key to unlock the secrets hidden by nature's doors. Probably some of you will have read Prof. Osler's address some few years ago, entitled "The Master Word in Medicine", wherein Osler elaborates on this theme, and I would recommend this to the perusal of any who have not yet had an opportunity of seeing the same.

At the Ecole Normale Pasteur took a special pleasure in the lectures on chemistry of J. B. Dumas and Balard, the physics classes of Pouillet, and mineralogy of Delafosse, though careful not to neglect mathematics and other sciences. Pasteur was successful at the "Agregation" or examination, in 1846, ranking third, but decided to wait and take his degree of "Docteur es Sciences." It was while working for this that he began to direct his attention to the study of the tartaric acids, especifally their crystalline form, as he had decided to make his doctor's thesis on a subject of crystallography. Let me give you Prof. Frankland's (Professor of Chemistry, Mason College, Birmingham) appreciative description of Pasteur's work on this subject. "The phenomenon which attracted the attention of young Pasteur was the existence of two tartaric acids apparently identical in chemical composition, in chemical properties, in crystalline form, and in fact in every detail excepting alone that the solution of one of these tartaric acids had no effect on polarized light, whilst the solution of the other turned the plane of polarization to the right. Submitting these

crystals to the most searching scrutiny, Pasteur found that there were some minute faces on the crystals of the tartrate inactive to the polarized beam, and such importance did he attribute to these little faces that he recognized that their presence relegated the substance possessing them to an entirely different class of objects from that to which belonged the substance possessing them not.

"For whilst the crystals of the inactive tartaric acid, which were destitute of these little surfaces, he found were symmetrical, the crystals of the optically active tartaric acid he found were unsymmetrical or disymmetric, as he called it. Now to the symmetric character of the crystals of the one tartaric acid he attributed the inactivity of this tartaric acid to polarized light, whilst with the disymmetric character of the crystals of the other tartaric acid he connected its action on the polarized beam.

"In studying these apparently insignificant details, Pasteur found that by crystallizing the inactive tartaric acid in a particular way he obtained two different kinds of crystals, the one set being identical with those of the active tartaric acid already known, whilst the other set were the mirror images of these, and had never been seen by the eye of man before. The young philosopher at once drew the conclusion that if the disymmetry of the known tartaric acid caused it to turn the plane of polarization to the right, the disymmetry of this new tartaric acid would turn it to the left.

"With infinite pains Pasteur picks out from the mixture the individual crystals belonging to each of the two types, and arranges them in two heaps; each of these heaps of crystals was then separately dissolved in water and the two solutions submitted to polarized light. In accordance with his anticipation, whilst the solution of the crystals of the known form was found to turn the plane of polarization to the right, the solution of the new crystals, the mirror images of the old, was found to turn the plane through precisely the same angle to the left. This might have appeared to many a trivial discovery only, but such was not Pasteur's opinion of it, for rushing from the laboratory in a fever of excitement and meeting a fellow assistant in the corridor he embraces him and exclaims, overcome with emotion, 'Je viens de faire une grande decouverte.' And such in truth it was, although almost his first discovery, and the one which has the least contributed to the general celebrity of its author, it is, nevertheless, almost impossible to over-estimate its import-

ance, in view of the remarkable fertility of the researches to which it has directly and indirectly given rise."

I need not dilate on the value of these researches to the chemistry of organic substances, but need simply say that this discovery is the basis of the research into the special distribution of the atoms in the molecule, explaining isomerism, etc. But Pasteur's study of the tartaric acids did not end here, fortunately. Ordinary tartaric acid is readily fermentable, and Pasteur studied the effects of fermentation of the various tartaric acids and made the remarkable discovery that while the right-handed (to polarized light) tartaric acid readily fermented, the inactive (racemic) acid only partially fermented, the residue being left-handed tartrate which refused to ferment. Thus he established that the atom grouping of the molecule makes a very important difference physiologically, and this has since been widely recognized in many organic substances. From a study of chemical changes effected by fermentation Pasteur was led to study the cause of fermentation itself. At this period fermentation was not looked upon as a biological process, but as a purely physical one, the predominant idea being that of the chemist Liebig, who was at this time (1850-1860) in his zenith. Liebig taught that "the ferment was an extremely alterable organic substance which decomposed, and, in decomposing, set in motion, by the ruputre of its elements, the molecules of fermentable matter." Thus in the ordinary yeasty growth in syrupy solution undergoing fermentation, the change was not due to the vital activity of the yeast, the only influence that the yeast would possess would be that its dead cells, in decomposing, would impart the necessary motion to the sugar molecules to disrupt them and transform them into alcohol. It was recognized by many observers that bacteria, yeasts, moulds, etc., were often found in fermenting and decomposing liquids, but it was held that these were the result of spontaneous generation, having nothing whatever to do with the decomposition, but were simply some of its products.

Now these studies on tartaric acid and its fermentation were spread over a number of years, being taken up when duty permitted. In 1847 Pasteur took his degree of "Docteur es Science," and after acting for some time as an assistant, in 1849 was appointed Professor of Chemistry in the Straasburg Faculty, which position he occupied until the end of 1854. It was while at Straasburg that Pasteur worked out fully the relationships of the tartaric acids and began the study of the causes of fermentation. He also married shortly after going to

Straasburg the daughter of the Rector or President of the Faculty, and he seems to have been particularly happy in the choice of his helpmate. Early in 1855 he was appointed Dean and Professor of Chemistry in the new Faculty of Science being organized in Lille. This city was the centre of the manufacture of beet root alcohol, and also produced much wine and vinegar, so that it was peculiarly well situated for the practical study of fermentations. Let me point out that the proper control of fermentation processes was, and is, of vast practical importance in the wine, beer, vinegar and other industries, including in our province cheddar cheese-making, and that before Pasteur's time, while much was known practically about methods of fermentation, nothing was known as to reason which caused, say, one brewing of beer to be excellent, while another brewing, fermenting similarly, soured in the cask, grew flat or even became ropy.

Pasteur showed that ordinary fermentative and putrefactive processes were caused by and occurred only in the presence of certain yeasts or bacteria as case might be. Further, he showed that without these special yeasts, or bacteria, being present and developing, a material, no matter how fermentable or putrescible, did not undergo any change. Again, that, when a fermentation went wrong, it was due to entrance and growth of other and different forms of organisms. The experiments brought forward to prove these points were exceedingly ingenious and convincing. It took but a short time indeed to convince the brewers of the practical value of his findings, and all large breweries are now equipped with a microscope for a study of yeast and detection of its impurities, and, speaking from my knowledge of English breweries, the use of the microscope is a very important item of training for brewers there. I cannot say the same for this country, as certainly, in so far as my knowledge goes, the microscope is not an instrument seen in our breweries. Perhaps if it were more used there would be a better brand, but it gives us bacteriologists a chance to straighten things out.

It took years, however, and the aid of Prof. Tyndall's decisive experiments, to break down the opposition that was brought to uphold the old doctrine of spontaneous generation. Let me give you a translation of Pasteur's own conclusions on this matter "No, there is to-day no known circumstance which permits us to affirm that microscopic beings have come into the world without germs, without parents like unto themselves. Those who hold that they do have been the plaything of illu-

sions, of experiments badly made, tainted with errors which they have not known how to perceive, or which they have not known how to avoid. Spontaneous generation is then a chimera."

These researches marked out Pasteur as a remarkably acute observer with great clearness of mind. His writings are marked for their lucidity of expression, and in the debates produced by them in the French scientific societies Pasteur proved himself a keen controversialist, absolutely fair to his opponents, but demanding of them proofs of their statements, not mere words. "You say much but prove nothing," was his only reply to one opponent who endeavored to drown his demonstrations in a torrent of words.

Pasteur's work on fermentation and putrefaction set many other investigators to work, and amongst these the one to whom surgery owes so much, viz., Lister. Many men had previously pointed out that there was a close resemblance between fermentative processes and infectious disease, and, when Pasteur proved that fermentation depended upon the vital activity of microbes, Lister began to study wound secretions and had no difficulty in detecting numerous bacteria in these discharges. As Pasteur had shown that the microbes of fermentation were present in the air and surroundings of the fermentable material, Lister concluded that these wound bacteria were in like manner derived from the air and surrondings of the patient, and he then set himself the task of preventing the entrance of bacteria, or preventing their development in the wound. We do not employ to-day the exact system Lister devised, as it has been greatly improved upon with our more exact knowledge of the life history of the wound-infecting bacteria, but our present methods are a direct outcome of his. The antiseptic and aseptic system of wound treatment has, with anesthesia, made modern surgery, and proved one of the greatest blessings and boons to suffering mankind. One can only form some adequate idea of the value of Lister's work when it is remembered that the average mortality from the general run of operations ran from twenty to fifty per cent., and from the saying of the French surgeon, Vulpian, "The merest pin prick is an open door to death." Lister always attributed his basic ideas to Pasteur, freely crediting him with the honor, as witness the following extracts from his address at the Pasteur Jubilee in 1892: "Truly there does not exist in the entire world any individual to whom the medical sciences owe more than they do to you. Your researches on fermentation have thrown a powerful beam which has lightened the baleful dark-

ness of surgery, and has transformed the treatment of wounds from a matter of uncertain and too often disastrous empiricism into a scientific art of sure beneficence. Thanks to you, surgery has undergone a complete revolution, which has deprived it of its terrors and has extended almost without limit its efficacious power."

Pasteur's studies on fermentation, begun at Lille, were continued by him on his transfer to Paris in 1857 as Dean of Scientific Studies in the Ecole Normale, which position he held till 1867, when he became Professor of Chemistry at the Sorbonne. In 1865 Pasteur entered upon another phase of work which was destined to be of great practical importance and a stepping-stone to very important discoveries in the causation of infectious diseases in animals and man. At the request of the Government, Pasteur began the study of phebrine, or silk-worm disease, which was completely destroying the silk industry of France, the annual loss running over twenty million francs. Pasteur and his assistants spent nearly five seasons (only the worm hatching seasons could be spent in study of this disease) in the study of the causes and prevention of phebrine and, incidentally, another disease, which occasionally broke out, called flachery. By this time Pasteur, who had very early found the cause, worked out the life history of the parasite and laid down the rules which, when followed, would secure worm broods free from infection. He found that the presence of the parasite was manifest by the development of a peculiar corpuscle in the bodies of the moths, and that the eggs laid by these moths were always more or less infected, depending upon the number of corpuscles in the moths. Pasteur, after the moths had emerged from the cocoons and had mated, placed each female on a piece of linen, where it laid its eggs. The moth was then pinned up in a corner of the same square of linen, where it dried up, and later in the season the dried moth was moistened in a little water, ground up in a mortar, and the paste examined microscopically for corpuscles. If any were found the seed was burnt. The microscopic examination proved a very simple matter, requiring the use of only moderate power lenses, and the method of examination could be learned by any average individual. The success of his system was immediate and earned for him the gratitude of all engaged in the silk industry.

While Pasteur had been honored by many learned societies already, besides receiving the ribbon of the French Legion of Honor, the Government now voted him an annuity of twelve

thousand francs for his services. About this time, in 1868, to be precise, the German University of Bonne gave Pasteur the degree of M.D., *honoris causa*. This was the only medical degree ever possessed by Pasteur, and he did not retain it long, but sent it back, like a true patriot, after the Franco-German war.

In 1877 Pasteur was asked by the Government to take up the study of anthrax or splenic fever. This disease was one of serious moment in many departments of France, destroying from ten to fifty per cent. of the sheep, and often attacking cattle, horses, pigs, and even man at times. Pollender and Davaine, in 1849 and 1850, had detected rods in the blood of sheep dead of anthrax, but had not comprehended the value of their discovery. Davaine again, in 1863, after Pasteur's publications on fermentation, had re-examined sheep dead of anthrax, and now claimed the rods to be the cause of this disease. Pasteur in his investigation rapidly confirmed Davaine's results, and set himself to work to study the life history of the bacterium. He was able to secure cultures of the bacterium and after many generations showed that these cultures were able to transmit the disease. He showed that the bacterium was a spore-bearer, and that the sanious discharges during the illness of the animal, and the bodies of animals, were the source of soil infection, the spores persisting in the soil, the animals being infected by ingesting spores through abrasions of the digestive tract. The prophylaxis of the disease at first looked somewhat hopeless owing to the extensive soil infection, but a little later a discovery made in pursuing a study of a disease of fowls made Pasteur endeavor to provide a vaccine for the disease. Let us consider what this discovery was. In 1879 Pasteur undertook the study of chicken cholera, an acute epidemic fowl disease, and soon detected the causal bacillus, and was able to secure cultures and with them reproduce the disease. In this work (Pasteur at first used only liquid media) some flasks of culture were overlooked and allowed to lie unused for some weeks. Some fowls were inoculated from them, and to Pasteur's surprise these fowls recovered. These fowls were then inoculated with fresh active virus and proved refractory. In his address, when as Dean he opened the Faculty of Science at Lille in 1855, Pasteur made use of the phrase, "Chance only favors the mind which is prepared." Pasteur's mind seized the facts presented by the above experiment. He had prepared a vaccine, or attenuated virus, for chicken cholera, and he hastened to confirm this observation. Could vaccines

be prepared for other diseases? Could they be prepared for anthrax? Pasteur soon found that the age of anthrax cultures did not cause any alteration of their virulence. This he attributed, and rightly so, to their being spore-bearers. Various methods were tried, when it was found that cultures grown at 108.5 deg. F. did not form spores, while the bacillus itself grew. Inoculation of cultures kept at this temperature for some days gave only a slight reaction, and, when this inoculation was repeated, using for the second inoculation cultures grown for a shorter period, it was found that sheep were then quite refractory to inoculation of virulent bacilli or to the natural disease. This discovery was immediately put into use on a large scale and was found to work out perfectly, so that vaccinated flocks were now immune. This system is to-day employed in all anthrax-infected countries, including our own.

Pasteur next turned his attention to rouget, or swine erysipelas, and was soon able to discover its cause and prepare a vaccine against this disease. As one of the rewards for his services in checking the spread of diseases of animals, Pasteur's annuity from the Government was in 1884 increased to twenty-five thousand francs per year.

In 1880 Pasteur's attention began to turn to rabies or hydrophobia in dogs. His first results were unsatisfactory, but in 1883 and 1884, being able to give more attention to the investigation, he discovered that the virus is present particularly in the medulla of rabid animals, but did not yield to his methods of cultivation, nor could he discover anything by microscopic examination. He found, however, that he could transfer the disease by inoculation of animals with the saliva, but more certainly with the medulla of a rabid animal, and that inoculation with the latter under the dura mater was almost always successful. As Pasteur himself put it, "Since this unknown being is living we must cultivate it; failing an artificial medium we will use the brain of living animals." By inoculating the fresh medulla under the dura of rabbits and passing from rabbit to rabbit, the activity of the virus increased till the rabbits invariably died on the seventh day, thus Pasteur secured his fixed or strong virus. He also found that on drying the cord in a sterile cool atmosphere over caustic potash the virus in such cords gradually weakened, so that cords dried for fourteen days no longer give rise to disease when inoculated. This, you will see, is somewhat along the same lines as the attenuation of the cultures of chicken cholera by keeping the culture. Pasteur then tried the effects of repeatedly inoculating dogs

with medulla, beginning with cords dried fourteen days, and day by day using cords dried one day less, till finally the fresh active medulla was used. The dogs then proved refractory even to subdural inoculation or to bites by known rabid animals. Pasteur had conquered this disease in so far as rendering animals refractory, but rabies is a rather uncommon disease, and it would be out of the question to attempt to stamp out rabies by immunizing all animals. Pasteur's next step was to find if he could, after an animal was bitten, render it refractory to the disease, just as when one is exposed to smallpox one gets at once (or should get) vaccinated to prevent the development of the true smallpox. Pasteur found that this method succeeded in protecting such animals from becoming rabid when inoculations were started shortly after the bite. The next step was of course inevitable; would this method succeed in protecting the human subject when bitten. Pasteur soon had an opportunity to put the matter to the test, for early in 1885, almost before his experiments on the protection of dogs were complete, a young Alsatian boy, badly bitten, was brought to him with a request that he do what he could. After consultation with some medical colleagues, and with their approval, Pasteur, with much concern, undertook the task and gave the boy the inoculations; rabies did not develop. Some months after another patient came to him, of his own free will, who had been bitten five days previously. This patient also received the inoculations and remained free from the disease. Thus was firmly established in human medicine the first instance where along purely experimental lines a vaccine was worked out for a disease, and this as a discovery must take equal rank at least to Jenner's discovery of vaccination against the smallpox.

One can note the orderly sequence of Pasteur's work here, building up a good foundation and thereon rearing a superstructure perfect, because experimentally tested in all its parts. As Woodhead so well remarks, "He grudged no labor, spared no time nor energy in filling in the gaps in each stage of the work as he advanced, and never took a step forward till he was perfectly certain of the solidity of the ground on which he rested. This it is that makes his work so reliable and assures to it a permanence that can be hoped for the work of but few."

The immediate outcome of the rabies work of Pasteur, in so far as he was personally concerned, was the organization of a service for the prophylactic treatment of those bitten by rabid animals, and to this Pasteur and his assistants devoted their energy for some years. As an immediate outcome, too, there

was instituted a public, in fact, international, subscription for the erection of an institute for rabies and for infectious diseases generally of man and animals. Over two and one-half million francs were subscribed, and in 1888 this institute, known as the "Pasteur Institute," was opened with much eclat. Pasteur was now sixty-six years of age, and in his address at the opening of the Institute makes this a matter of regret. "Alas, mine is the bitter grief that I enter it, a man vanquished by time, deprived of my masters and even my companions in the struggle." But Pasteur knew that he was building not for the present alone but for the future, and his pupils have indeed increased their master's and their own fame. Let me but mention Duclaux, Roux, Metchnikoff, Yersin, Haffkine, Calmette, Widal, Chantamesse and Nocard as names known in all countries to students of scientific medicine.

While Pasteur's own active labors were over he still took an active interest in the work of the Institute, and had the pleasure of seeing the assured success of his treatment of hydrophobia, together with the wonderful growth of institutes of bacteriological research the world over, more especially those of Germany, where the elaboration of technical details alone have marvellously advanced bacteriological science. In 1892, in his seventieth year, there was organized an international Pasteur Jubilee, at which Lister was the main British representative, and indeed shared with Pasteur the honors of the occasion. Let me extract a few more sentences from Lister's address on this occasion, as expressive of the debt medicine owes to Pasteur: "Medicine is not less indebted than surgery to your profound and philosophic studies. You have raised the veil of mystery which had throughout the foregoing centuries covered infectious diseases. You discovered and demonstrated their microbic nature. Thanks to your initiative, and in many cases to your own special labors, there is already a host of these pernicious diseases with the causes of which we are perfectly acquainted. 'Felix qui potuit rerum cognoscere causas.' This knowledge has in an astonishing degree perfected the diagnosis of these scourges of the human race, and has indicated the path which must be followed in their prophylactic and curative treatment. In this path your beautiful discoveries as to the attenuation and intensification of viruses and preventive inoculations serve, and will always serve, as a guiding star. As a splendid illustration I may mention your researches on rabies. Their originality in the province of pathology as well as in that of therapeutics was so striking that at first many medical men

felt some distrust. As for myself, I was too well acquainted with the clearness of your genius, the scrupulous caution of your inductions, and your absolute integrity, to share for a moment these ignoble sentiments. My confidence has been justified by the event. With the insignificant exception of a handful of ignorant persons, the whole world now recognizes the greatness of what you have achieved against that terrible disease. You have supplied a means of diagnosis which surely dispels the anguish of uncertainty which formerly haunted any one who had been bitten by a healthy dog suspected of being rabid. That alone would have been enough to assure the everlasting gratitude of mankind. But by your wonderful system of antirabic inoculations you have been able to pursue the poison after its entrance into the body and to conquer it there. Monsieur Pasteur, infectious diseases constitute, as you are aware, the great majority of the diseases which afflict the human race. You can, therefore, have no difficulty in understanding why medicine and surgery hasten on this occasion to lay at your feet the deep homage of their admiration and their gratitude."

Pasteur was not fated to live to see the more recent advances in bacteriology, such as the study and use of toxins and antitoxins, and the work that has grown out of them. While much of the credit of these was due to the German school, especially Koch and Behring, yet the pupils of Pasteur have not been backward, as witness Roux's work on the antitoxins, especially diphtheria, Haffkine's work on cholera and the plague, Roux and Yersin's work on plague and plague antitoxin, Widal's work on typhoid, Calmette's work on snake venoms, Metchnikoff on the defensive action of the body cells, especially the leucocytes, also on syphilis, Nocard on pleuro-pneumonia and other diseases of animals, Duclaux on milk, cheese, etc.

Pasteur for the last two or three years of his life suffered from attacks of uremia, and in one of these he passed away, surrounded by his family and his assistants of the Pasteur Institute. He died on September 28th, 1895, in his seventy-third year. His funeral was a public one, and attended by the President of the Republic as a mark of respect of the nation to a man whose genius had done so much for France and for humanity. His work will last as long as the history of medicine, and time will but make his achievements shine with a more brilliant lustre. As Renan has so eloquently said, in summing up his achievements, " His scientific life is like a luminous trail in the great night of the infinitely little, in those ultimate abysses of being where life is born."

SUPPURATIVE BASILAR MENINGITIS FOLLOWING CHRONIC OTITIS MEDIA.

By E. Ralph Hooper, B.A., M.B.
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This case is presented as it will serve to again remind us that many conditions which strongly simulate hysteria have a definite pathological basis, and may terminate rapidly in a fatal result. Though this knowledge may not favorably influence treatment, it will at least lead to a more cautious prognosis and a more careful sifting of the history and possibly a more determined attempt to secure a complete examination of the patient.

The patient was a female, unmarried, and forty years of age. She was fairly well nourished, and of so-called nervous temperament.

For some years past the patient has suffered from severe headaches, in spite of treatment by physicians and powders advised by friends.

Though the headache has been general, at times, it was more definite in its origin and severity over the right auricular and mastoid region.

There has been during the past fourteen months a marked decline in health, with an increased pallor of countenance.

A cough of a persistent character has been a feature of the patient's history. It was irritative in type and failed to respond to either expectorant or sedative mixtures. On an examination of the throat by a specialist it was advised to remove the tonsils. This was done, with no favorable result on the cough. The cough was, therefore, regarded by her physician to be of so-called nervous origin, and especially as it was absent during a visit to the country.

During the last few months the headache and accompanying ear-ache became intolerable, and greatly impaired the patient's condition. On the Friday and Monday preceding Christmas the patient complained of feeling very poorly, and her appearance, too, indicated it. On Tuesday, Christmas Day, the health was poor in the early part of day, but improved towards evening. The following morning the patient was found in a semi-conscious state and medical aid was sought. The pulse was rapid, full and tumultuous, the temperature elevated to 100.2 deg. The condition was one of extreme restlessness, tossing

from side to side of the bed. The patient would lie with the face partly buried in the clothes and the arms raised above the head.

The answers to questions were obtained with difficulty and the replies were meagre and brief. Only leading questions were answered and only these, too, which could be answered by a negative or affirmative.

The whole attitude and conduct were indicative of hysteria. The conditions increased in the presence of sympathetic spectators. At those times that the patient tried to throw herself from the bed it was always on that side on which the attendants stood.

There were only two conditions which pointed to a possible pathological cause. Vomiting occurred in the morning, and again in the afternoon, and a ptosis of the right eye was observed at one time, but was transient. It was impossible to make a more detailed examination, as the patient resisted such attempts as she turned and tossed from one position to another. The face throughout was everted, and made any observation of pupils impossible.

At seven o'clock in the evening the condition was alarming to the friends and aid was summoned. The pulse increased rapidly from its rate of 100 at 8 o'clock to 110 beats. In a half hour the rate was 120; later 130; in an hour, 145, and finally 160. There was much respiratory activity; the rate at times was 60 and harsh in nature. Later the breathing was quieter and less frequent in rate. This did not follow the Cheyne-Stokes type, as it lacked the rhythmic quality attributed to that breathing. The conduct of the patient was entirely suggestive of hysteria, and described by older practitioners as "tantrums."

Though the observation of the patient indicated a functional disturbance, a review of the history, together with vomiting and ptosis, supplied a group of facts which pointed to a more alarming state, probably a cerebral complication following an ear disease. This opinion was confirmed by an autopsy.

It will sufficiently elucidate the case to state at this time that the meningitis resulted from an extension of a chronic otitis media through the tegmen tympani and arcuate eminence to the cerebral meninges, and that the agent was the pneumococcus.

The questions excited by an experience of this kind are: 1st, What symptom or group of symptoms may be depended upon to reveal the grave character of those cases? 2nd, What cerebral or intra-cranial complications may be expected to follow

a middle ear trouble? 3rd, What is the causative agent, and how may the symptoms produced by it be distinguished from those following the action of other bacteria? 4th, What treatment should be instituted to prevent such intra-cranial involvements?

It is impossible in a few minutes to do more than indicate the answers to these questions. On the other hand, it would be quite meaningless to recite such phenomena without trying to appreciate the lesson they should teach and grasp the principles underlying their production.

That trinity of cardinal symptoms, headache, projectile vomiting and optic neuritis, in many cases may be quite useless. The vomiting and headache are common to many states, and frequently it is not possible to determine the presence of optic neuritis, and in rapid cases it may not exist. The eye symptoms are suggestive. The paralysis of the oculo motor is more frequent and more easily recognized. The internal convergence, too, is present, but not always clearly marked.

Dr. Allen Starr, of New York, has called attention to what may be regarded as not only an important but most useful means of distinguishing a meningitis from a cerebral abscess. When a lumbar puncture is made the germ causing the inflammation, whether diplococcus or tubercle bacillus, is found present in the fluid of meningitis, but these germs are not found in the fluid if the disturbance is due to a cerebral abscess.

Again, it is altogether reliable that a leucocytosis is not present in the case of an abscess unless acccompanied by a meningitis. It may be somewhat aside the question to refer to the value of the cerebellar seizure in cerebellar disease. This group of symptoms to which attention has been asked by Dana consists of sudden, unexpected attacks of extreme vertigo, roaring in the head, relaxation of limbs and falling to the ground in semi-conscious state, and sometimes accompanied by temporary blindness and tonic spasms. Especially is this true of tumors in angle between cerebellum pons and medulla.

The complications of middle ear disease are: (*a*) Cerebral abscess, (*b*) suppurative meningitis, and (*c*) infective thrombosis of the lateral sinus (infective sigmoiditis).

The three most common agents are the pneumococcus, streptococcus and the tubercle bacillus. The pneumococcus appears to be the one most frequently present.

The "diplococcus intra cellularis meningitidis" forms a class by itself with certain symptoms.

A comparison of the symptoms produced by these agents

shows that the presence of the pneumococcus is marked by the "absence or slight development of symptoms which point to extensive infection of the meninges of the cord and spinal roots and extension along the cranial nerves."

When one remembers that fifty per cent. of the meningeal disorders are the result of secondary infection, it seems incumbent upon us to anticipate such direful terminations by a removal or drainage of the infected area.

The number of recoveries from operation of cerebral abscesses of otitic origin varies from fifty to fifty-five per cent., according to Kocher and Oppenheim.

Berg divides the symptoms of meningitis into three classes:

1. Those produced by the poison of the disease, chills, convulsions, fever, vomiting, nasal catarrh, constipation, etc.

2. Those produced by infection of cord, stiffness of neck, ophisthotnos, pain along spine, hemiplegia, difficulty of micturition, incontinence of urine and feces.

3. Symptoms produced by influence of the brain, headache, slow pulse, hydrocephalic cry, vertigo, convulsions, delirium, stupor, coma, Cheyne-Stokes; eye symptoms, ptosis, strabismus internal infusion of the eye, conjunctivitis, etc.

It is more particularly to the repeated experiences of a simulation of intra-cranial disease to hysteria that our attention is drawn. So frequent and striking has been the identity of cerebral lesions and so-called functional disturbances, as hysteria, that one is constrained to ask whether there may not be a pathological basis for hysteria which our present clinical and microscopic examinations are unable to discover.

The *Lancet* reports the case of a cerebral embolus following pneumonia in which the diagnosis ante mortem was hysteria. Another case of cerebral hemorrhage presented such symptoms that it was considered to be an instance of hysteria.

Several other cases in the practice of local physicians were in their manifestations hysterical, but subsequently were discovered to be of intra-cranial origin.

May not the future show more definitely the relation between the functional and cerebral disturbances mentioned and lead to a readjustment of our views of hysteria and allied disorders?

THE DIAGNOSIS OF CARCINOMA OF THE PYLORUS.

By Graham Chambers, Toronto.

The symptomatology of pyloric cancer varies materially with the development of the disease. This variation is principally due to the increasing toxemia and to the fact that in the earlier stages of the disease the motor function of the stomach is normal or only slightly disturbed, whereas in the later stages motor insufficiency is generally present. In the consideration of the diagnosis of pyloric cancer it is, therefore, well to discuss separately the symptomatology of these two periods.

The Diagnosis of Pyloric Cancer in the Earlier Stages.

In the earlier stages of cancer of the pylorus there are frequently few subjective symptoms. The patient may complain of a feeling of fulness in the epigastrium after eating, belching, loss of appetite and other symptoms such as occur in mild derangements of the stomach; but none of these should suggest any disease except probably gastritis. The condition of the appetite is probably the most important of these early subjective symptoms, as according to my experience there is frequently a progressive loss of appetite from the beginning of the disease, except in cases following affections of the stomach characterized by excessive secretion, such as ulcer and hypersthenic gastritis. The general appearance of the patient may not give any aid in diagnosis. The apparent nutrition may be good, due, no doubt, to the fact that although there is loss of appetite the patient continues to eat sufficient to prevent diminution in weight. In some cases there is impaired nutrition (loss in weight, etc.) early in the course of the disease, and it is this complaint or loss of appetite that frequently leads the patient to seek medical advice. In many cases, however, very little attention is given to these earlier complaints, and medical aid is not sought until symptoms of motor insufficiency of the stomach appear. The loss in weight is an important symptom, especially if progressive. When it is present, associated with symptoms of indigestion, in a middle-aged or old person one should always think of cancer of the stomach as a possible cause.

Physical examination of the abdomen seldom gives any aid in the diagnosis. As a rule no tumor is palpable; no peristaltic waves are visible. The stomach is not markedly dilated, at least as the result of the growth in the pylorus.

The examination of the gastric functions may give better information. The motor function may be normal or slightly diminished. The secretory function is usually decreased to the extent that free hydrochloric acid is absent, with the exception of cases following gastric affections with glandular hypertrophy, such as chronic ulcer and hypersthenic gastritis, there is, I believe, a gradual diminution of secretion of hydrochloric acid. Now it should be remembered that the hydrochloric acid of the normal gastric contents exists in two forms, free and combined with proteid. The latter forms the larger amount, sometimes three times the former. It does not take long, therefore, for a progressive diminution of secretion to cause the disappearance of free hydrochloric acid.

This opinion with regard to the value of diminished secretion of hydrochloric acid as a sign of carcinoma of the stomach is largely formed from the study of the results of my analyses of gastric contents during the last eight years. During this period I have examined about one hundred gastric contents of cases of gastric cancer and in all free hydrochloric acid was absent, with the exception of seven or eight cases. In these the cancer was engrafted on a chronic ulcer or followed hypersthenic gastritis.

There is another sign which, when associated with absence of free hydrochloric acid, loss in weight, etc., is valuable. I refer to the inability of the physician to give relief in many cases. Now, in most benign affections of the stomach one can generally affect a cure or at least greatly ameliorate the complaints. There is no doubt that in some cases of carcinoma of the stomach careful dieting, the exhibition of stomachics, such as condurango, etc., produce marked, though temporary, improvement in the condition of the patient. But the intermission is not for long. The symptoms soon reappear, usually with increased severity.

The Diagnosis of Pyloric Cancer in Stages in which Marked Symptoms of Motor Insuffiency of the Stomach are Present.

Cancer of the pylorus does not exist long before marked symptoms of motor insufficiency of the stomach appear. The food begins to stagnate in the stomach. Fermentation results and manifests itself by fulness and pressure in the region of the stomach. Nausea and vomiting are soon added to the disease picture. The vomiting usually occurs in the evening, and the vomitus gives evidence of stagnation and retention of food. It

may recur daily, or every few days. At this stage the patient is reduced in weight and complains of muscular weakness. The skin feels dry and usually looks anemic and frequently cachectic. This complex of symptoms is common in pyloric cancer; but it may be observed in any affection characterized by motor insufficiency of the stomach. The following are diseases in which this disease picture may occur:

1. Gastroptosis.
2. Gastrectasis.
3. Ulcer of the stomach.
4. Pyloric obstruction due to adhesion, hypertrophy of the sphincter pylori, or cicatrical contraction.
5. Duodenal obstruction.
6. Jejunal obstruction.

These affections must be differentiated from pyloric cancer. In pursuing the study of a case we must look for other evidence. Unfortunately there is no known pathognomonic sign of pyloric cancer which can be made use of by a physician, except possibly the microscopical examination of a particle of the growth very rarely removed by a stomach tube. However, by studying the symptoms as a whole one can usually determine the nature of the disease.

The physical examination of the abdomen gives valuable information. A tumor is frequently palpable, due, no doubt, to the movability of the normal pylorus and to the fact that the stomach is generally displaced somewhat downward in pyloric obstruction. In some cases the tumor is situated behind the liver and inaccessible to physical examination. In others a rigid right rectus abdominis acts as a barrier to palpation. In these latter cases it is a good plan to teach the patient to relax his recti by drawing up his legs and compressing his abdominal wall with his hand. The tumor of pyloric cancer is usually very hard and frequently nodulated. It generally moves with deep breathing. Occasionally it is very movable. In a case recently under my care it could be pushed down and to the right almost as far as McBurney's point. When pyloric cancer is distinctly movable, tumor of the head of the pancreas or of the duodenum may be excluded. In some cases of pyloric cancer the gastric contents can be felt passing through the constricted orifice. This is important sign, as it shows that the tumor belongs to the stomach. Further proof may be obtained by distending the stomach to different degrees and noting the relation of the tumor to the distended viscus.

Other signs which can be made out by physical examination

of the abdomen are the determination of the positions of the curvatures, the size of the stomach and the presence or absence of visible peristalsis. Slight degree of gastroptosis is very common in pyloric cancer. Ectasy of the stomach, in lesser or greater degree, is always present. Visible peristalsis, when present, is a valuable sign. It is more likely to occur in benign than in malignant pyloric obstruction, and may also be present in duodenal and jejunal (upper part) stenosis. It is also occasionally present in gastroptosis, due to kinking of the duodenum. It is probably never present in gastrectasis (atonic dilatation).

The examination of the vomitus and gastric contents after a test-meal frequently gives important information. In some cases hematin (coffee ground) is present, but this may be observed in any gastric affection in which small hemorrhages occur. Free hydrochloric acid is absent in over ninety per cent. of cases. When cancer of the stomach is well advanced I believe free hydrochloric acid is absent except in cases of cancer engrafted on an ulcer or following severe hypersthenic gastritis. Moreover, the combined hydrochloric and the gastric ferments are greatly diminished. When the secretions of the stomach are markedly diminished and free hydrochloric is absent, and at the same time there is retention of food, lactic acid fermentation invariably occurs, and there is generally a profuse growth of the Oppler-Boas bacillus. These three signs, absence of free hydrochloric acid, presence of considerable lactic acid and a profuse growth of Oppler-Boas bacillus, usually indicate the presence of pyloric cancer.

When cancer becomes engrafted on an ulcer or follows hypersthenic gastritis, analysis of gastric contents frequently shows normal or excessive secretion of hydrochloric acid. There is no material change in the gastric contents with the development of the cancer, and consequently there is greater difficulty in making a diagnosis. We must remember that hypersthenic gastritis is very apt to be complicated by ulcer; that the common seat of ulcer is the pyloric region, the same as in cancer; that chronic ulceration of the pylorus frequently produces stricture and spasm of the orifice, and much thickening. The physical and functional signs of cancer and of chronic ulcer may, therefore be alike. The nutritional and blood changes may be different, but these are never sufficiently definite to differentiate the diseases. In these cases one should try the effect of a most rigid treatment of ulcer, and if this fail, which is usually the result in chronic ulceration of the pylorus, the case should be

immediately transferred to a surgeon, lest the ulcer degenerate into a cancer.

In my practice these cases of cancer following ulcer have been far from rare.

The disease-picture is something like the following:

The patient, usually between thirty-five and sixty years of age, gives a history of chronic indigestion of several years' standing. At the commencement the distress was most intense one or two hours after eating, and was ameliorated or relieved by taking baking soda or food. This was the stage of hypersthenic gastritis. After a time symptoms of ulceration appeared. The pain became more intense and frequently appeared in a few minutes after eating. Vomiting became a common symptom. Occasionally the patient vomited blood. These symptoms gradually became worse. The ingestion of baking soda no longer gave relief. The patient became weak and emaciated. If the abdomen is examined at this stage a tumor may be palpated in the region of the stomach. The stomach is usually dilated. Visible peristalsis may be present.

These complex of symptoms may be manifestations of either cancer or chronic ulcer, and laparotomy is the only method of determining which is present.

The Differential Diagnosis of Pyloric Cancer.

In the differential diagnosis of pyloric cancer one must exclude the diseases mentioned above, which cause motor insufficiency of the stomach.

Gastroptosis, particularly the fish-hook type, may be characterized by symptoms similar to those of pyloric cancer. In this displacement the lesser and greater curvatures of the stomach are much lower in the abdomen than normal, while the pylorus is frequently in about the usual position. As the result the outlet of the stomach is directed almost vertically. The first part of the duodenum makes an acute angle with the second. This causes obstruction, and gives rise to symptoms very similar to those of obstruction of the pylorus. The patients are weak, pale and emaciated. Vomiting is common. Examination of abdomen frequently reveals the presence of visible peristalsis. The head of the pancreas may be palpable and may be mistaken for pyloric tumor. Further examination should, however, give a clue to the diagnosis. In gastroptosis the abdominal wall is frequently flabby. The right kidney is, as a rule, movable. The position of the stomach may be readily determined. In the majority of cases analysis of the gastric contents shows the

presence of free hydrochloric acid. But the most important of all the signs is the rapid improvement of the case under correct treatment. When, in cases of gastroptosis, there is no free hydrochloric acid in the gastric contents one should not hastily exclude cancer of the stomach, as downward displacement of the stomach is frequently associated with pyloric cancer.

Gastrectasis (atonic dilatation) is, as a rule, easily distinguished from pyloric cancer. There is frequently a history of long suffering. Water, as well as solid food, stagnates in the stomach. Free hydrochloric acid is usually present in the gastric contents. No tumor can be made out. Visible peristalsis is absent. Lavage and careful dieting improves the condition.

Chronic ulcer of the stomach is very difficult to distinguish from cancer engrafted on the base of an ulcer. When the nutrition is good it is usually ulcer which is present. This subject is discussed above in the paragraph on analysis of gastric contents. In cancer of the pylorus not preceded by ulcer or hypersthenic gastritis there is invariably absence of free hydrochloric acid in the gastric contents, whereas in chronic ulcer, especially in the form which occurs between thirty and sixty years of age, there is generally free hydrochloric acid and frequently excessive acidity of the gastric contents.

The symptoms of benign stenosis of the pylorus are very similar to those of malignant, and consist of vomiting, loss of weight, anemia, dry skin, thirst, etc. There is ectasy of the stomach, and visible peristalsis is frequently observed. The analysis of gastric contents shows the presence of free hydrochloric in most of the cases. This is a most important sign, as in about ninety per cent. of cases of pyloric cancer there is absence of hydrochloric acid. It is only in the cases following ulcer and hypersthenic gastritis that great difficulty arises in the diagnosis.

Duodenal and jejunal obstruction are usually caused by cancer. The symptoms of the former vary to a considerable extent with the position of the stricture. When the growth is situated above the papilla of Vater the disease picture is very similar to that of pyloric obstruction. The fact that the tumor of duodenum is fixed might be of value in determining the correct diagnosis. Cancer of the papilla of Vater invariably causes jaundice. This sign, together with symptoms of motor insufficiency of the stomach, etc., should suggest the probable cause and seat of the disease. When the obstruction is below the papilla of Vater, either in the duodenum or upper part of jejunum, there is, in addition to symptoms of motor insufficiency of the stomach, vomiting of bile.

Proceedings of Societies.

CANADIAN MEDICAL ASSOCIATION, MONTREAL, SEPTEMBER 11th, 12th, 13th, 1907.

WORKING COMMITTEES.

Medicine.—Drs. H. B. Cushing, F. G. Finley, Gordon, H. A. Lefleur, Martin, Morrow, Nicholl, Peters, Richer.

Surgery.—Drs. Armstrong, Archibald, Bell, Barlow, Bazin, Elder, England, Garrow, Monod, Forbes, von Eberts.

Dermatology.—Drs. Jack, Shepherd.

State Medicine.—Drs. McTaggart, Louis Laberge, Starkey.

Laboratory Workers.—Drs. Keenan, Yates, Duval, Adami, Klotz, Bruere.

Pediatrics.—Drs. Blackader, Gordon Campbell, Fry, F. P. Shaw, Francis.

Gynecology.—Drs. Chipman, Gardner, Lockhart, Lapthorn Smith.

Museum.—Drs. Adami, Maud Abbott.

Eye.—Drs. Byers, J. J. Gardner, Stirling, McKee, Tooke.

Laryngological.—Drs. H. S. Birkett, R. Craig, Jamieson, H. D. Hamilton.

Neurologist.—Drs. Shirres, Colin Russell.

Obstetrics.—Drs. Cameron, Evans, Reddy, Little.

Physician's Library.

W. B. Saunders Company, of Philedalphia and London, have just issued a revision of their handsome illustrated catalogue of medical, surgical, and scientific publications. Beyond question this is the most elaborate and useful catalogue we have ever seen. The descriptions of the books are so full, the specimen illustrations are so representative of the pictorial feature of the books from which they are taken, and the mechanical get-up so entirely in keeping with the high order of the context. The authors listed are all men of recognized eminence in every branch and specialty of medical science. The catalogue is well worth having, and we understand a copy will be sent free upon request.

Timeliness of interest, aside from any other condition, lends especial importance to the announcement of the early publication of "Foods and Their Adulterations," by Harvey W. Wiley, M.D., to be immediately followed by a companion volume, "Beverages and Their Adulterations." Dr. Wiley is Chief Chemist to the United States Department of Agriculture at Washington, and his wide researches in the interests of purity in food commodities give anything that he might write on the subject an authoritativeness that is unquestioned. The fact that the new National Food and Drugs Law became effective after January 1st, and that public interest in it is now at white heat, will no doubt result in quite a demand for both volumes. graphs and drawings. Publishers: P. Blakiston's Son & Co., Philadelphia.

Canadian Almanac.

This is the jubilee year of the Canadian Almanac, a miscellaneous directory for the year 1907. It contains full and authentic commercial, statistical, astronomical, departmental, ecclesiastical, educational, financial, and general information. It is edited by Arnold W. Thomas, and is published by the Copp, Clark Company, Limited, Toronto, of whom copies may be obtained for 50 cents. The Canadian Almanac is one of the most valuable productions issuing annually from the Canadian press.

The Doctor's Recreation Series. Vol. IV. A Book about Doctors. The Saalfield Publishing Company, Akron, Ohio.

The contents of this volume are twenty-seven chapters devoted to various subjects interesting to medical men, and all of unusual interest. There are four illustrations: Prof. Billroth's Surgical Clinic, The Founders of the Medical Society of London, An Accident, and The Anatomist. It is a good volume in the series.

A Manual of Normal Histology and Organography. By CHARLES HILL, PH.D., M.D., Assitant Professor of Histology and Embryology, Northwestern University Medical School, Chicago. 12mo volume of 463 pages, with 312 illustrations. Philadelphia and London: W. B. Saunders Company. 1906. Canadian agents: J. A. Carveth & Co., Toronto, Ont. Flexible leather, $2.00 net.

Written in the interests of primary students, this admirable book contains the fundamental facts in histology succinctly and clearly set forth. It is nicely illustrated, of the best type, and the 2,000 medical students in Canada before whom this journal is placed regularly may take our recommendation that it will fully meet their requirements in this particular study of medicine.

Atlas and Text-Book of Human Anatomy. Volume II. By PROFESSOR J. SOBOTTA, of Wurzburg. Edited, with additions, by J. PLAYFAIR MCMURRICH, A.M., PH.D., Professor of Anatomy at the University of Michigan, Ann Arbor. Quarto volume of 194 pages, containing 214 illustrations, mostly all in colors. Philadelphia and London: W. B. Saunders Company. 1906. Canadian agents: J. A. Carveth & Co., Toronto, Ont. Cloth, $6.00 net; half morocco, $7.00 net.

Volume II. of this work has more than fulfilled the great promise of Volume I. We are highly pleased with it. Essentially a beautifully illustrated work on anatomy, no medical library will be complete without it. No doctor in practice, no surgeon in practice, will lose anything by getting these two books right away. The illustrations are remarkable in their exactness, as they are striking in their artistic effects. The text is short, crisp, clear, precise, sufficient for general work.

A Manual of Pathology. By GUTHRIE MCCONNELL, M.D., Pathologist to the St. Louis Skin and Cancer Hospital and to St. Luke's Hospital, St. Louis, Missouri. 12mo of 523 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1906. Canadian agents: J. A. Carveth & Co., Toronto, Ont. Flexible leather, $2.50 net.

Brevity yet clearness is the essential feature of this neat, leather-bound, profusely and aptly illustrated book. The final student will find this book a splendid acquisition in getting a quick grasp of the subject of pathology, as well as a good reviewer just prior to examination time.

Woman. A Treatise on the Normal and Pathological Emotions of Feminine Love. By BERNARD S. TALMEY, M.D., Gynecologist to the Metropolitan Hospital and Dispensary, New York. For Physicians and Students of Medicine. With twenty-two drawings in the text. New York: The Stanley Press Corporation, Publishers.

There is certainly a great deal of knowledge in this book that teachers do never think of imparting to their students. Hence the reason for its publication. Indeed the author must have read widely and observed closely to produce it. There are some things, however, better spoken than written. Some of these might have with good propriety been omitted. It is all right to teach practitioners some things, but it would be immature to do the same by medical students. Therefore, while practitioners may gain something from this book, we would flatly refuse to recommend it to medical students. It is assuredly a book to be kept out of the hands of the laity.

A Text-Book of Pathology. By ALFRED STENGEL, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Fifth revised edition. Octavo of 977 pages, with 399 text-illustrations, many in colors, and 7 full-page colored plates. Philadelphia and London: W. B. Saunders Company. 1906. Canadian agents: J. A. Carveth & Co., Toronto, Ont. Cloth, 5.00 net; half morocco, $6.00 net.

A large part of the sections of this book dealing with general pathology has been thoroughly revised, especially the chapters on inflammation, immunity and animal parasites, which have also been augmented. It is a work of nearly 1,000 pages, and is an admirable text-book for both students and practitioners.

Plaster of Paris and How to Use It. By MARTIN W. WARE, M.D., Adjunct Attending Surgeon, Mount Sinai Hospital; Surgeon to the Good Samaritan Dispensary; Instructor in Surgery, N. Y. Post-Graduate Medical School. 12mo, 72 illustrations, about 100 pages. New York: Surgery Publishing Co., 92 William Street. Cloth, $1.00.

This is one of the most useful books ever presented, not only on account of the general demand for the information and instructions upon the subject which this book so explicitly, practically and comprehensively covers, but because this knowledge was not previously available except from such a vast experience as enjoyed by Dr. Ware, or, in part, by reference to many books on allied subjects.

It is a vivid narrative, profusely illustrated, of the many uses to which plaster of Paris is adaptable in surgery. The whole subject, from the making of the bandage to its use as a support in every form of splint, corset or dressing, is graphically described and illustrated. The use of plaster of Paris in dental surgery is also covered. The book is presented in the artistic manner characteristic of the productions of the Surgery Publishing Company. It is printed upon coated book paper and attractively bound in heavy red buckrum, stamped in white leaf and gold.

The Practitioner's Medical Dictionary. An Illustrated Dictionary of Medicine and Allied Subjects, Including all the Words and Phrases Generally used in Medicine, with Their Proper Pronunciation, Derivation, and Definition. By GEORGE M. GOULD, A.M., M.D., author of "An Illustrated Dictionary of Medicine, Biology, and Allied Sciences," "The Student's Medical Dictionary," "30,000 Medical Words Pronounced and Defined," "Biographic Clinics," "The Meaning and Method of Life," "Borderland Studies," etc.; editor of "American Medicine." With 388 illustrations. Octavo, xvi. + 1,043 pages. Flexible leather, gilt edges, rounded corners, $5.00; with thumb index, $6.00, net. Philadelphia: P. Blakiston's Son & Co., publishers, 1012 Walnut Street.

This book is in every respect and detail new. Its object is to supply the practitioner with trustworthy, modern definitions of essential medical words and terms. It is based on recent medical literature. It contains, among other new features, the terms

of the Basle Anatomical Nomenclature (BNA). The standards of pharmaceutic preparations as authorized by the eighth decennial revision of the United States Pharmacopeia are given. Tables of signs and abbreviations used in general medicine and the specialties, and of the English and metric systems of weights and measures are introduced. It has been made up in a form most suitable for ready reference, complete in text and illustration, and attractive in appearance. Printed on tough, thin paper, excessive weight and bulk is eliminated, while the dull surface of the paper, together with the employment of new, clear type, facilitate ease and comfort in reading. The book will lie perfectly flat at any page to which it may be opened.

That, before the issuance of this special work, over 200,000 copies of Dr. Gould's other medical dictionaries had been sold, is sufficient attest that this work is worthy the most earnest consideration of every active practitioner.

International Clinics. Vol. IV. Sixteenth Series.

The colored plates, the plates and the figures, of which there are many in this volume, which closes the series for 1906, are fine and artistic. They are exceptionally good. The volume comprises 322 pages in all. The first article is on electrotherapeutics, which alone, in a separate volume, would readily command the price of the entire volume. It is a very clear and practical article. There is another good article on the treatment of hemorrhoids, a better one on the principles of treatment of fractures of the lower extremity, and, the best of all, one on placenta previa and its treatment. The selection of these four for special mention casts no reflection on the others, which are all good and thoroughly modern. We understand that these quarterly volumes will be issued a little earlier than heretofore. Reader, if you want something absolutely good and progressive in medicine, subscribe for " International Clinics " without delay.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enrol themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $2.50 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

The Ontario Medical Association will meet in **Toronto** a little earlier than usual this year, namely, on the 28th, 29th and 30th of May. We have emphasized Toronto for two reasons. The first is that it may be known where the meeting is to be held; the second is in order to once more call the attention of the active members that it is a mistake to try to make Toronto the perpetual home of the Association. In the councils of the Association each year Toronto is selected principally because a majority of those who attend are from the city, and because year by year it appears that the attendance falls from the outside points. It will quickly be rejoined in support of always meeting in Toronto, that outside points have been tried. True, a few have been tried in the past, but because the attendance did not loom as large as at Toronto, back the meetings came to this city. Change of scene and travel would be a good prescription for the Ontario Medical Association.

The Formation of Medical Associations is a healthy sign. One has recently been organized in the Ottawa valley; another in Oxford County; another at Goderich. Those that have been formed for years are no longer languishing; they have been revivified. This augurs well for the national association. It should be of untold advantage to the provincial societies. Union in this way will greatly benefit the profession in every community. There are many good reasons why the medical profession should be a united body. Far too long has it been individualized. Too often have doctors been indifferent friends in small and even large places. Union need necessarily not mean "trade-unionism," with the associated thought of strikes; although trade-unionism to better the lot of the rank and file of the profession has the powerful sanction and advocacy of Sir Victor Horsley. Doctors should not falsely pose before the public that they prefer honor and gratitude to money and pay for their service. A united profession does not call for a profession less charitable to the poor. There are other professions and trades and callings which do a great deal for the poor as well as the doctors. Every calling should unite to sidetrack dead beats. It is the people who will not pay when they can pay that should be shunted. Apparently Sir Victor, from his address before the Medical Library of the Sheffield University, believes that the time is come when medicine should be stripped of all foolish chivalry and romanticism.

The Osteopaths of Ontario are getting Ambitious. They are going to apply to the Ontario Legislature to be incorporated in the Ontario College of Physicians and Surgeons, almost precisely on the same footing as are the Homeopaths. They want to practice their massage by Act of Parliament. No one can make any objection to an exponent of osteopathy entering the profession of medicine by the regular path which leads to practice, which we have all trod but one in this province. If the thin end of the wedge of quackery ever enters the profession of medicine in Ontario, we may expect it to cleave a cleft into which will pour a voluminous stream of charlatanism. The

Medical Council must be watchful and active. The Ontario Medical Association must take an active moral part. In fact, all the medical societies in the province and the entire medical profession must be diligent in fighting the nefarious principle which would make doctors by Act of Parliament. In this instance a powerful advocate has been engaged to draft the proposed bill for the osteopaths. With all the sanctimony of which he is a past master in displaying when occasion demands it, or even when it does not, he will not hesitate to make Holy Writ responsible for the existence of the osteopath. This body of masseuers has no status and are awfully presumptuous.

The University Magazine, the continuation of the McGill *University Magazine,* is a new periodical, which doctors, as university graduates, will be interested in. It will be distinctly a Canadian production and is to express an educated opinion upon questions concerning Canada. It is proposed to get all the universities in Canada interested in its production. Dr. Andrew Macphail, the editor of the *Montreal Medical Journal,* is the editor; and as Dr. Macphail is getting a good foot forward in literature, this will be a guaranty that meritorious literary articles will alone secure insertion. As educated men, physicians will hail with pleasure a magazine with such high ideals, and all over Canada they will hope that the scheme for the consolidation of the monthlies now published into this *University Magazine* by the universities will go forward to a successful completion. Dr. Macphail, himself, contributes an article to the first number on John Knox; and there is another by Dr. John McCrae, of Montreal, on "The Oldest Drama." It is a magazine of fine promise.

Physical Diagnosis made some distinct advances during the past year. Goldscheider fully described his method of orthopercussion, whereby the cardiac outlines obtained by percussion coincided with those obtained by radiography. Treupel and Engels, after extensive observations stated that orthopercussion surpassed every other method in obtaining the outlines of the

heart. Meyer and Milchner consider that by it alone can the infantile heart be outlined. The method is essentially as follows, according to a writer in the Progress Number of the *Interstate Medical Journal:* The percussion must be done so gently that in a quiet room the sound is just audible to the ear held close to the percussion finger; only the tip of the plessimeter finger must be held against the chest; the percussion must be done only in the intercostal spaces, not over the ribs; the direction of the blow as one passes around the chest must not be perpendicular to the thorax wall but should always be kept saggital, *i.e.*, parallel to a line perpendicular to the sternum.

The Canadian Medical Association meets in Montreal on the 11th, 12th and 13th days of September. Working committees have been struck, and members should bear in mind that now is the time to be thinking of preparing papers and case reports. This will most likely be the largest meeting in the lifetime of the Association. The question of re-organization and the establishment of an official journal will be up for discussion. Both are very important and are now exciting keen interest. The Canadian medical profession is awakened to the advantages of meeting in national convention. The fact that over eight hundred Canadian physicians attended the meeting of the British Medical Association last year in Toronto will stand out before all; and this meeting will prove just how truly loyal Canadians can be to their own Association.

Science Notes.

Facts About Black Lead Pencils.

It is difficult to determine the exact period in which " black lead " was first utilized as an instrument for writing or drawing, as it has been confused with other mineral bodies to which it bears no relation. The ancients used lead, but the metal was formed into flat plates, and the edges of these plates used to make the mark. If an ornamental design was desired, the transcriber drew parallel lines, and traced their illuminated designs, usually with a hard point but also with soft lead. That lead was known to the ancients is also proven by the fact that it is mentioned in the Book of Job.

During the year 1615 there was a description of the black lead pencil written by Conrad Gesner. He says that pieces of plumbago were fastened in a wooden handle and a mixture of fossil substance, sometimes covered with wood, was used for writing and drawing. About half a century later a very good account of this mineral was given, and it was then used in Italy for drawing and mixed with clay for manufacturing crucibles. We are informed in Beckman's " History of Inventions " that the pencils first used in Italy for drawing were composed of a mixture of lead and tin, nothing more than pewter. This pencil was called a stile. Michael Angelo mentions this stile, and in fact it seems that such pencils were long used in common over the whole continent of Europe. At this period the name Pulmbago or graphite was not in use, but instead the name molybdena or molybdoids, which is now applied to an entirely different mineral.

Graphite or black lead is formed in the primary rocks. In the United States it occurs in felspar and quartz, in Great Britain in greenstone rock and gneiss, and in Norway in quartz. The mine at Borrowdale, Eng., has supplied some of the finest black lead in the world, but the quantity varies, owing to the irregularity with which the mineral occurs.

The Jews were for a while the only manufacturers of pencils. It required great skill to perfect the manufacture, according to the degree of hardness or softness required. Of recent years the manufacture of pencils has increased to such an extent that the price of these articles has decreased proportionately. Graphite and pure clay are combined and used in the manufac-

ture of artificial black lead pencils, and on the other hand the greatest perfection is attained in the making of the higher class pencils. Graphite is exposed to heat to acquire firmness and brilliancy of color. Sulphur is also used to secure a more perfect color.—Katherine B. Calhoun, in *Sc. Am.*

The Yawning Cure for Throat Diseases.

A little book, recently published in Vienna, is devoted to a method of vocal culture, and also health culture, that has stood the test of practical experience in numerous cases but is not as well known as it deserves to be. It is based upon the vocal method of the concert singer, Josephine Richter, the mother of the celebrated orchestra leader, Hans Richter, and consists essentially of peculiar movements of the jaws which ultimately give the pupil an astonishing command over the soft palate, besides strengthening the muscles of the face, neck and chest.

Herr Lanz, the author of the book, quotes a letter written to Mme. Richter by the late Prof. Helmholtz, in which that famous physicist says: "I can readily understand, from theoretical considerations, that the flabbiness of the soft palate and the back of the mouth must act as a damper upon the voice and an obstacle to precision of attack and utterance. Hence if the command of the palate, tongue and larynx which you possess can be acquired by your method of exercising the muscles of the face and throat, as your own example appears to prove, the fact is clearly of great importance. It is physiologically probable that such exercises would have that effect."

That the exercises do have that effect is proved by an examination of an average untrained throat and the throat of a singer trained by the new method. In the former the soft palate and its conical extension, the uvula, hang limp and constrict the vocal passage, which is further narrowed by the prominent tonsil at each side. In a mouth so encumbered, as in a room filled with furniture, it is impossible for the voice to ring loud and clear. The tonsils and soft palate of the trained singer, on the other hand, are retracted and hardened and the pendent uvula has entirely disappeared, giving the voice a clear and wide passage with firm walls, and consequently increasing its volume and improving its quality.

The method is recommended for the cultivation of the speaking as well as the singing voice and for the prevention and alleviation of various diseases of the throat. "It gives

astonishing relief in catarrh of the throat and suggests new possibilities in the treatment of enlarged tonsils."

Now these exercises consist essentially of yawning, which has recently been recommended, independently, as a valuable exercise for the respiratory organs. According to Dr. Naegli, of the University of Luettich, yawning brings all the respiratory muscles of the chest and throat into action and is therefore the best and most natural means of strengthening them. He advises everybody to yawn as deeply as possible, with arms outstretched, in order to change completely the air in the lungs and stimulate respiration. In many cases he has found the practice to relieve the difficulty in swallowing and disturbance of the sense of hearing that accompany catarrh of the throat. The patient is induced to yawn through suggestion, imitation or a preliminary exercise in deep breathing. Each treatment consists of from six to eight yawns, each followed by the operation of swallowing.

It should be added, however, that it is quite possible for deep breathing to be overdone, particularly by persons with weak hearts, and it is at least open to question whether the obstacles to free respiration which the yawning cure is alleged to remove are not useful in preventing the entrance of germs and other foreign bodies.—*Sc. Am.*

News Items.

SMALLPOX is spreading in Peel County, Ontario.

DR. GEO. R. MCDONAGH, Toronto, has gone to Egypt.

DR. S. F. WILSON, of Montreal, is dead, aged fifty-one years.

DR. H. A. BOGUE, of Richford, Ont., is moving to California.

DR. J. T. CLARKE, Toronto, has been appointed an associate coroner.

DR. CHAS. W. VIPOND has returned to Montreal from Jamaica.

THE *Western Canada Medical Journal* has been established in Winnipeg.

THE stork was busy in December in Winnipeg, the births numbering 232.

SELKIRK, Man., wants $2,500 from the Manitoba Government for a hospital.

OTTAWA Board of Health is interesting itself in a pure milk supply for that city.

THERE were treated at the Montreal General Hospital last year 50,441 patients.

OUT of 120 deaths in Winnipeg in January, thirty were caused by pneumonia.

DURING 1906 there were 16.138 deaths for every 1,000 of Winnipeg's population.

DR. J. D. HAMILL, for many years the popular and efficient Mayor of Meaford, has been appointed to the important position of postmaster of that municipality, and recently entered upon his new duties.

Dr. W. Egbert, from Calgary, is renewing old acquaintances in Milverton.

Drs. McConnell and Bradford, of Morden, Man., have entered into partnership.

The Ontario Government will grant $50,000 for a Hygienic Institute at London, Ont.

Dr. J. G. Hardy is dead at Carlyle, Sask. He had practiced in the West fifteen years.

Dr. McInnis, M.P.P., Brandon, Man., has collected $15,000 towards a provincial sanatorium.

Dr. W. S. Fowler, who has been visiting in Vancouver, has returned home to San Francisco.

Ninety deaths occurred in St. John, N.B., in 1906 from consumption. The total deaths were 775.

Dr. Andrew Macphail, Editor of the *Montreal Medical Journal*, was in Toronto the last of January.

Dr. R. B. Brice, well known in Kingston, died in Chicago, January 3rd, of paralysis. He was 69 years old.

Dr. Agnes Turnbull, of the Women's Presbyterian Missionary Society of Canada, is dead in Central India.

Sixty-two cases of diphtheria, fifty of scarlet fever, and thirty of typhoid, were reported in Toronto in January.

Dr. F. J. Shepherd, Montreal, has been appointed consulting surgeon to the Royal Victoria Hospital of that city.

The following have been elected to the medical branch of the Corporation of the Western University: Dr. A. V. Becker, President; Dr. Septimus Thompson, Secretary; Executive, Drs. H. T. Reason, H. A. McCallum, C. H. Reason, F. R. Eccles and J. B. McCallum.

An effort is being made in Manitoba to have the Provincial Government give the University of Manitoba $250,000. The Dominion Government endowed the University with 150,000 acres of land worth $1,000,000, but the Manitoba Government is said to have been a little niggardly with its own university.

Dr. Thornton, a very promising physician of New Richmond, Que., was suffocated in a fire which destroyed his home there recently.

Dr. J. K. M. Gordon, of Ripley, has been asked to take charge of the Muskoka Free Hospital at Gravenhurst as acting chief physician.

Dr. Kendrick, who has been with Drs. Brien and Doyle, of Essex, the past six months, has returned to Toronto to take special studies.

Dr. John D. Cameron, one of the best known medical men of Montreal, died, January 4th, of typhoid fever, at the early age of 38 years.

Dr. A. H. Trottier, of Tilbury, gold medallist of Western University, London, will assist Drs. Brien and Doyle, of Essex, in their practice.

Two new associate coroners are appointed, Dr. John Wesley Brien, of the town of Essex, and Dr. Percival Chapman Casselman, of Morrisburg.

Drs. C. S. McGuffin, E. Seaborn, J. B. Campbell, and J. D. Balfour, London, Ont., have been elected to the Western University of that city.

Mr. Robert Reford, of Montreal, has offered $50,000 to McGill University, conditional on an endowment fund of $1,000,000 being raised.

Dr. Thomas Turnbull, lately of Winnipeg, has entered into partnership with a leading Chicago specialist, and has gone to take up his new duties.

Subscriptions aggregating $239,000 have been received for the new Notre Dame Hospital in Montreal. Senator Forget contributed $200,000 of that amount.

Dr. Ross, who has been practicing in Seaforth for the past five years, will leave this month for Europe to spend several months taking special work in surgery in London and on the Continent. In his absence his practice will be looked after by Dr. Smillie, formerly of Hensall.

We desire to call the attention of our readers to the announcement of Mr. Clinton T. Brainard, New York, who is offering some exceptional bargains in well-known authors.

Mr. Wm. Southam, Hamilton, will give $10,000 to the Hamilton City Hospital for a wing for tuberculosis cases if the Governors of the Hospital will take charge of it.

Dr. S. T. Rutherford, late of Listowel, has removed to Stratford and taken up the practice of his profession in commodious offices specially fitted up for him in the Windsor Block.

A very important step on the part of the Government in connection with the treatment of the insane has been taken in the appointment of a clinical director and pathologist in the Toronto Asylum. Dr. J. G. Fitzgerald, who has received the appointment, has the highest qualifications for the position. He was born near Harrison, Wellington County, and was graduated from the University of Toronto and the Toronto Medical School. After completing his studies he became a member of the staff of the Buffalo Asylum for the Insane. Later he went to Johns Hopkins University, and for the last two years has been studying psychiatry and pathology at the Johns Hopkins and Sheppard and Enoch-Pratt Hospitals.

Physicians who are interested in the study and legitimate practice of the physical (drugless) therapeutic methods, notably electro-therapy, photo-therapy, mechano-therapy, hydro-therapy, suggestion and dietetics, are invited to join the American Physio-therapeutic Association. Address the Secretary, Dr. Otto Juettner, No. 8 W. Ninth St., Cincinnati, Ohio. The officers for the ensuing year are: President, Dr. H. H. Roberts, Lexington, Ky. Secretary, Dr. Otto Juettner, Cincinnati, Ohio. Treasurer, Dr. Geo. H. Grant, Richmond, Ind. Executive Council, Drs. W. F. Klein, Lebanon, Pa.; Jas. Hanks, Brashear, Mo.; J. W. Unger, West Point, Miss.; Chas. S. Northen, Talladega, Ala.; R. W. Gibbes, Columbia, S. C.; S. J. Crumbine, Topeka, Kans.; F. L. Keeler, Perry, Okla.

The Oxford County Medical Association was organized recently by the medical men of the county. For some time there have been several efforts made to form such an organization, and the endeavors met with a successful issue recently. Nineteen medical men were present. The action of the association is for the discussion of medical questions and of matters

pertaining to the medical profession in general as well as for social intercourse. The officers elected were: Hon. Presidents, Dr. Joy, Tillsonburg; Dr. Williams, Ingersoll; Dr. Adams, Embro. President, Dr. A. B. Welford, Woodstock. Vice-President, Dr. Rogers, Ingersoll. Secretary, Dr. Brodie, Woodstock. Treasurer, Dr. Neff, Ingersoll. Executive Committee, Drs. Parke and Mearns, Woodstock; Dr. Green, Embro; Dr. Coleridge, Ingersoll; Dr. Staples, Princeton. Committee on By-laws, Drs. Parke, Mearns and Sinclair, Woodstock; Dr. Bennett, Tillsonburg; Dr. Canfield, Ingersoll. The next meeting of the association will be held at the call of the President. Similar organizations are in existence in all the leading cities, and in many of the counties of Ontario. The doctors of Oxford feel confident that the new society will be both successful and beneficial.

The Homewood Sanitarium, Guelph, Ont.—On Saturday afternoon, the 2nd of February, Dr. Hobbs, Superintendent of the Homewood Sanitarium, very kindly showed our Managing Editor through his institution and especially explained and showed the new wing now rapidly nearing completion. This is composed of two large wings connected by passageways, which so provides for isolation of violent patients without entire separation from the main building. The admirable appointments of this institution, the beautiful surroundings, and the comfortable, home-like air pervading every part of the institution, places it on a par with similar American institutions, indeed, if it does not in a great measure surpass the best this continent has established. The new wing is to be opened with appropriate ceremonies in April of this year.

The Committee on Papers of the Ontario Medical Association, in addition to the address in Surgery by Dr. Crile, of Cleveland, is now able to announce that an address in Medicine will be delivered by Dr. Ravenal, of the Phipps Institute, Philadelphia, on "The Methods of Infection in Tuberculosis." One of the afternoons of the meeting will be given up to a series of papers dealing with the "Relation of the Profession to the Public." These will touch the medico-legal, public health, and psychiatric aspects of the question, and the preservation of water supplies being taken up in a distinct paper. The programme in both the medical and surgical sections is being raidly filled in in a manner that leaves no doubt about the interest that will attach to the discussions.

Publishers' Department

FISHING AND SHOOTING.—A new region, known as the "Temagami" (pronounced Tem-mog-a-me) District, is being brought to the notice of the public as one of the finest fishing and hunting confines in Canada. Excellent sport is assured all who take advantage of a trip to this magnificent territory which is 300 miles north of the city of Toronto at an altitude of 1,000 feet above the sea. Black bass, speckled trout, lake trout, wall-eyed pike and other species of fish are found here in abundance, and large game such as moose, caribou and deer abound in the forests. A handsome booklet, profusely illustrated, giving all information, including comprehensive maps, can be had free on application to J. D. McDonald, D.P.A., Union Station, Toronto

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EARLY DECAY OF CHILDREN'S TEETH.—A live question with physiologists is the very general tendency in children to early decay of the teeth and the resultant unfortunate consequences to general health. It is now generally conceded that one of the main causes of the decay of teeth is the general use of white bread and soft, mushy foods. The coming of the teeth marks a period in the child's life when an elaboration of the all-milk diet is required. The amylolitic function is gradually developing and it is, therefore, necessary to provide food which will not tax these new powers and yet will afford gentle exercise so as to promote normal development. The whole-wheat food, Egg-O-See, contains soluble starch (maltose) and even before the child can chew the food this starch (practically pre-digested) is made available by straining the milk through Egg-O-See flakes. When a little later the molars appear they must begin the work of mastication and trituration if the teeth are to develop physiologically and grow into objects of personal adornment. The partial digestion of Egg-O-See makes it acceptable to the stomach of the child at this age; the dry, crisp flakes encourage proper exercise of the teeth, while the phosphates, nitrates and other salts of wheat (absent in white bread and similar forms of food) furnish the mineral food required by the teeth and the bony framework of the body. Readers of this journal will receive a full size package of Egg-O-See on application to the Egg-O-See Cereal Co., Chicago.

A Sterile Eye Bath.—An eye bath fashioned from a single piece of aluminum has been introduced by the Kress & Owen Company. That this little device will be well received by the medical profession is not to be questioned when one considers the many points of advantage this metal cup has over the old style glass contrivance. It is cleanly, unbreakable, and can be sterilized instantly by dropping into boiling water. The surgical bag in the future will hardly be complete without one of these cups, which will give happy results in many an emergency. It will be found invaluable for treating ophthalmia, conjunctivitis, eye strain, ulceration, and all inflammatory conditions affecting the eye.

Directions.—Drop into the eye bath ten to thirty drops of Glyco-Thymoline, fill with warm water; holding the head forward, place the filled eye bath over the eye, then open and close the eye frequently in the Glyco-Thymoline solution. No pain or discomfort follows the use of Glyco-Thymoline. It is soothing, non-irritating, and reduces inflammation rapidly.

The Treatment of Cough.—Cough, regardless of its exciting cause, is a condition that every physician experiences more or less difficulty in relieving. While the agents designed for its relief are numberless, it is a matter of common knowledge that but few of them are of general utility, for the reason that although they may be capable of effecting relief, in doing so they either derange the stomach, induce constipation, or cause some other undesirable by-effect. The ideal cough cure must combine sedative and expectorant properties without exhibiting the slightest system-depressent, gastric-disturbing, constipation-inducing, or palate-offending action. Nor should it contain any ingredient the prolonged use of which would cause a drug-habit. Then, too, it must be of sufficient potency to produce the desired effect with the utmost promptness, for in many instances the patient has indulged in self-drugging to a certain extent before consulting the physician; hence it is directly to the interest of the practitioner to demonstrate his skill by immediately relieving the disturbing condition. It is now universally conceded that Glyco-Heroin (Smith) is the ideal cure for coughs

of all varieties. This product embraces the most active sedatives and expectorant agents in the exact proportions in which they exhibit their greatest remedial potency. It matters not what the exciting cause may be, the effect of this preparation is always immediate, pronounced and extremely agreeable. The cough is almost instantly suppressed, the expulsion of the accumulated secretions is stimulated, respiration is rendered free and painless, and the inflammation of the lining of the air-passages is speedily allayed by its use. Glyco-Heroin (Smith) may be administered for an indefinite length of time without any depreciation in its curative properties and without the induction of a drug-habit. It is of especial value in the treatment of pulmonary phthisis. It is pre-eminently superior to all preparations containing codeine or morphine.

Anemia and Its Relation to Catarrhal Inflammation. —No disease is more common than chronic inflammation of the mucous membranes. Doubtless many causes contribute to the prevalence of this malady which spares neither the young nor the old, the rich nor the poor, the high nor the low. Prominent in its etiology, however, are sudden climatic changes, the breathing of bad or dust-laden air, bad hygiene in personal habits, and bad sanitary surroundings. These factors all singly or collectively tend to lower the vitality of the whole human organism, and as a consequence the cells throughout the body perform their various functions imperfectly, or not at all. The quality of the blood becomes very much lowered, with the result that tissues that have important work to perform, do not receive sufficient nourishment and so falter from actual incapacity. The red blood cells are reduced in numbers and the hemoglobin is likewise diminished. Because of the blood poverty the digestive process is arrested, nutritive material is neither digested nor absorbed, and a general state of inanition ensues. It is not surprising under these circumstances, therefore, that chronic inflammation of the mucous membranes is produced. These highly organized structures with very important duties to perform naturally suffer from insufficient nutritional support, and the phenomena of catarrh follow as a logical result. Perversion and degeneration of the cells in turn takes place, and more or less permanent changes are produced in the identity and function of the tissues. Appropriate treatment should consist primarily in correcting or eliminating all

contributing factors of a bad hygienic or insanitary character. The individual should be placed under the most favorable conditions possible and every effort made to readjust the personal regime. Local conditions of the nose, throat, the vagina, or any other part, should be made as nearly normal as possible by suitable local applications or necessary operative procedures. Then attention should be directed immediately to improving the quality of the blood and thus increase the general vitality. For this purpose vigorous tonics and hematics are desirable and Pepto-Mangan (Gude) will be found especially useful. Through the agency of this eligible preparation the blood is rapidly improved, the organs and tissues become properly nourished and accordingly resume their different functions. Digestion and assimilation are stimulated and restored to normal activity, and the various cells and organs start up just as would a factory after a period of idleness. In fact, Pepto-Mangan (Gude) supplies the necessary elements that are needed to establish the harmonious working of the whole organism. When this result is achieved, the catarrhal condition is decreased to a minimum and distressing symptoms are banished, a consummation that is highly gratifying to every afflicted patient and every earnest practitioner.

Our Confidential Friends.—We would not banish opium. Far from it. There are times when it becomes our refuge. But we would restrict it to its proper sphere. In the acute stage of most inflammations, and in the closing painful phases of some few chronic disorders, opium in galenic or alkaloidal derivatives is our grandest remedy—our confidential friend. It is here, also, that the compound coal-tar products step in to claim their share in the domain of therapy. Among the latter, perhaps, none has met with so grateful a reception as "Antikamnia and Codeine Tablets," and justly so. Given a frontal, temporal, vertical or occipital neuralgia, they will almost invariably arrest the head-pain. In the terrific fronto-parietal neuralgia of glaucoma, or in rheumatic or post-operative iritis, they are of signal service, contributing much to the comfort of the patient. Their range of application is wide. They are of positive value in certain forms of dysmenorrhea; they have served well in the pleuritic pains of advancing pneumonia and in the arthralgias of acute rheumatism. They have been found to allay the lightning, lancinating pains of locomotor ataxia, but nowhere may they be employed with such confidence as in the neuralgias

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BUFFALO, N.Y., August 11th, 1906.

RESINOL CHEMICAL CO.,
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Gentlemen,—It is with great pleasure that I recommend your Resinol Soap. I consider it unsurpassed for shaving. It leaves the face smooth and refreshed and has no bad after effect. Resinol Soap is a good insurance against pimples, eruptions and chafing of the face, following the use of other soaps. I find it most cleansing and invigorating to the scalp and hair. It is a sure preventive against dandruff and the consequent falling of the hair. Although a medicated soap, it is excellent for general family use, and I have so used it with gratifying results.

Yours truly,
N. FERNANDEZ.

183 Fox Street, Buffalo, N.Y.

As a profession we have erred in the past in giving too much medicine; we err nowadays possibly in giving too little. With the development of modern pharmacology and the decline of crude empiricism; with the tendency to give a single drug to meet definite indications; with the revival of esthetic medication and the abandonment of nauseous polypharmacy, drugs are recovering their legitimate place in the therapeutic armamentarium even of the most skeptically inclined.—ALFRED C. CROFTAN, in the preface to his new "Clinical Therapeutics."

CALX IODATA IN WHOOPING-COUGH.—I thought I would write to you some of my experience with calx iodata. Some time ago my attention was drawn to calx iodata by a "drug man," so I ordered an ounce of tablets to try in a case of croup if I had a chance. While waiting for the croup to appear I had a case of whooping-cough. No. 1. Boy about eight years old. Parents tried all kinds of remedies, but with no results.

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I gave him calcidin and calcium sulphide and had him on the road to recovery in a few days. No. 2. Girl, three weeks old. Gave calx iodata to saturation. This baby coughed continually. In twenty-four hours was easier and recovered in a few days. No. 3. Boy, six weeks old, whooped every half hour during the night, but not so bad day times. Gave him sixteen tablets in sixteen teaspoonfuls of water, directions one-half teaspoonful every hour until relieved—then every two hours. The next night he coughed three times, continued to for a week and then was well. No. 4. Boy, five years old. Whooping-cough. Would vomit every time he coughed and was weak from want of nourishment. I gave calcidin every two hours. Next day he was better, but vomited some. In three days no vomiting, and gaining in strength. No more whooping-cough. No. 5. My three boys, age eight months, three years and five years. All came down with whooping-cough. I gave the baby calx iodata, and in a week no more whooping-cough at night. Slept well. The other boys calcium sulphide. The one aged three years would whoop twice at night after giving the treatment. The oldest one "whooped" twice, and all told made a very quick recovery. I treated over sixty cases of whooping-cough last winter (1905-6) from three years of age to forty, and with children who couldn't swallow a pill I gave the calx iodata in solution of water, and gave it to saturation and gave it quickly, and with as good results as if I had given calcium sulphide, as I did with the older ones. Didn't have a case that didn't get well with this treatment. Also used calcidin in Pott's disease with good results, also in enlarged tonsils, glandular enlargements, disease of middle-ear, etc. I know of several doctors in this neighborhood who used it with the same results.—P. E. HANES, Maynard, Ia., in *The American Journal of Clinical Medicine*, Feb., 1907.

SOMETHING GOOD TO KNOW.—In my cases of bilious vomiting I have been giving to adults one granule of aconitine, gr. 1-124, dissolved, every fifteen minutes. Usually the first dose stops the vomiting, although I give four doses, which I follow with calomel and podophyllin, gr. 1-6 each for six doses. After four hours comes a full dose of saline laxative which cleans out the bowels and ends the trouble. The aconitine seems to destroy the sensitiveness of stomach when bile enters.—W. MOFFAT, Grand Rapids, Mich., in *The American Journal of Clinical Medicine*, Feb., 1907.

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Original Articles.

GRANULAR KIDNEY.*

By D. H. Arnott, M.D., London, Ont.

For my apologies in appearing before you this evening to read a paper I will have to refer you to the President. He asked me to present some subject to the Association, and bearing in mind the difficulty I had experienced in procuring papers from others, my well-known good nature caused me to consent. Then, indeed, my troubles began! All subjects seemed to be so well known that I was in a quandary as to the selection of something interesting. The older members have always assured me that the writing of a paper was most profitable to the one who prepared it. I therefore have written this paper to get the subject-matter more clearly fixed in my mind, and will depend upon the other members to supply the interest and profit generally when the discussion is opened.

In granular kidney almost invariably both organs are involved. Generally they are reduced in size, though occasionally they are the equal or even the superior of normal kidneys. You notice the capsule is thickened, and you find there is an increase in connective tissue throughout the kidney and an atrophy and degeneration of the active renal cells. The effect of this is seen most noticeably in the cortex, where the glomeruli are destroyed and the cortex as a result is reduced in thickness. An endarteritis involves the smaller arteries and capillaries.

The urinary secretion as described shows increased quantity

*Read at meeting of London Medical Society, January 14th, 1907.

with specific gravity of 1005 to 1012. Albumin may not be found, and frequently when discovered its presence is only demonstrated by the more delicate tests. Casts are always found at some stage, and will be seen frequently if careful search be made. Phosphates are markedly decreased.

Beginning in the left ventricle, and eventually extending to the whole organ, the heart becomes hypertrophied. This is known by the apex beat being displaced downwards and outwards. However, where there is emphysema of the lung this is often hard to demonstrate. This is the more to be regretted because not only is hypertrophy of the heart an important link in the diagnosis of granular kidney, but emphysema is most liable to occur at a time of life when the renal trouble is most prone to develop.

The renal failure eventually draws on increased cardiac action to aid in the work of elimination, and frequently death is precipitated by the inability of the heart to longer carry the load demanded.

Hyaline degeneration and arterio-capillary fibrosis attack the vessels generally. The evidence of this condition is seen in the radial artery, for instance. By obliterating the radial pulse the vessel can be felt as a distinct rounded structure, while in health it cannot be recognized from the surrounding tissue.

Persistent high arterial tension is an early and important sign of the possibility, nay, I might say probability, of renal difficulty, particularly if no other cause is obvious.

With persistent high arterial tension there naturally follows an hypertrophy of the arterial coats, either due to the severe strain which has to be met by the vessels or in part to the various poisons floating in the blood—such as lead, mercury, or the virus of syphilis.

I once saw a very ingenious explanation of high tension in this condition. It was a mechanical one, and as few mechanical theories will long explain any of the functions of the body, it will hardly suit in this case. However, it may be one factor in the determination of the degree of abnormal high tension which may occur, and I will give it to you for what it is worth.

The writer* maintained that granular kidney was provocative of anemia, and as a result there is an unusual and marked difference between the specific gravity of the blood plasma and that of the corpuscles. Therefore the corpuscles are not carried along with their usual celerity, but have a tendency to fall and

*Renal and urinary diseases, Saundby.

rub along the capillary walls. When this increased friction, slight though it may be, is considered in the light of the enormous areas covered by the myriads of capillaries throughout the body, a very good case is made out in favor of this physical condition being at least one factor in the determination of the degree to which the abnormal high tension may be raised.

The points of clinical interest we have so far noted are namely: Persistent high tension, arterio-capillary fibrosis, cardiac hypertrophy, an increased quantity of urine with specific gravity 1005 to 1012, albuminuria slight and evanescent and the presence of casts.

These are the comparatively constant conditions which accompany granular kidney. To fill out the history of any great number of cases many other phenomena will have to be noticed.

The eye changes most commonly observed consist of what is known as albuminuric retinitis. Two varieties are noticed, of different pathological explanation and of equally different clinical significance.

The first is inflammatory and exudative, showing patches on the retina described as woolly with indistinct borders. These are most commonly associated with parenchymatous nephritis, but do occur in granular kidney. They may be extensive and seriously interfere with sight, yet if the kidney mischief be checked there is a good chance these patches will disappear and the sight be restored remarkably well.

The second variety is not an edema, but a degeneration. The patches are white and glistening in appearance, with more sharply defined outlines. They are the result of fatty degeneration of the retina and the very finely divided fat granules, or it may be even minute cholesterine crystals replacing the once active retinal cells produce the characteristic bright fish scale appearance of these patches. These changes are degenerations due to the arterio-capillary endarteritis, and they never repair.

Retinal hemorrhages occur, but have no special appearances to distinguish them from hemorrhages due to other causes.

Blindness may be due to uremia or to cerebral hemorrhage. Intra-ocular bleeding or detached retina will produce the same result.

The skin at all times performs important functions, but during this trouble we often depend for help on the hyperactivity of the skin, so to speak. Therefore any change in the skin is always watched with anxiety. Edema may occur, and the vitality of the various layers of the epidermis be lessened there-

by. Local erythema or eczema may arise and be a source of considerable annoyance to both the physician and the patient. However, as long as they remain local they may have little bearing on the ultimate outcome of the case.

Blebs, however, are to be looked after very carefully owing to their liability to infection; as a result an inflammatory process closely resembling erysipelas may supervene, the desirability of avoiding which I am sure none need have urged upon them.

Even with edema, erythema, dermatitis, exfoliation or eczema may arise and become general. Such a complication is always of grave moment, as it betokens a very serious renal derangement.

Owing to the arterial degeneration we are not surprised to find aneurism of the aorta, and in the cervical or cerebral vessels it is rather a frequent occurrence.

Epistaxis, sometimes of alarming or even fatal severity, may occur. I am sure, however, all of us look upon the nose-bleed as a sort of safety-valve action, and we are very glad that the hemorrhage is not taking place in the brain, as we know cerebral hemorrhage is often a fatal and sudden termination of the disease.

Hematuria is an occasional occurrence, and in cases presenting small repeated hemorrhages we ought to be on our guard always lest it denote granular kidney.

On the heart itself we have seen that much depends, yet with the coronary arteries affected we can see what a terrible handicap a person is under in endeavoring to fight off a fatal termination.

Valvular insufficiency, dilatation of the heart and myocardial changes we see can readily occur, therefore we are not surprised if a serious or fatal breakdown of the circulatory system terminates the progress of the kidney mischief.

With cardiac failure and cerebral hemorrhage we have to class uremia in importance. Death frequently results from an uremic attack, and may be the first known warning that granular kidney is present.

An uremic attack often presents diagnostic difficulty, as it may simulate epilepsy, cerebral hemorrhage, narcotic poisoning or delirium tremens. The patient's condition may range from noisy delirium down through all the intervening conditions to dulness or profound coma.

The nervous system may also cause headache, dizziness, vomiting, peripheral neuritis, dyspnea and melancholia to be thrown out as an indication of the renal breakdown.

Now we have seen the essentials and the common accompaniments of granular kidney, but before going into the diagnosis and treatment I would like to present one or two more points which, so far as I know, have not been made clear in print.

As described in the books the whole situation reminds me of a predicament I was in one day three years ago last summer. I was off on one of my fishing trips, and fishing down the Beaver River, searching every eddy, every shadow and cover with the flies, when suddenly I became aware of the fact that there quite close to me was an enormous trout with his head poked under a ridiculously small log. I could have cast five times the distance to offer him the line. It was no use, however, as I could not present the cast in such a way that he would take the slightest notice of it. A worm was out of the question owing to a barb-wire entanglement of submerged cedar twigs in front, and the approach from the rear was guarded safely by the swift rush of the waters.

Now you know I could see the latter half of that trout very clearly, in fact I can see it yet, and I am convinced to this day that my difficulty lay not in seeing and seeing clearly the last half of the trout, but I could not get at the first part or business end of the fish.

Now we all see granular kidney—see, that is, the last half of it and see it clearly—and are as helpless in regard to it as I was while I contemplated the magnificent sweep of that big trout's tail as he kept his place under the log.

But there must be a beginning to granular kidney. For instance, there must have been a time in a typical case when the urinary specific gravity was 1014, 1016, 1018, or normal, and I might add there always is a time when it is habitually above normal. In short, there must have been a period when renal difficulty preceded renal inadequacy. The first stages are as deliberate and as hesitating in their advance as are the manifestations of the later stages. It is altogether beyond my comprehension that a typical case of granular kidney, full grown and menacing, ordinarily can be produced practically all at once and then run a chronic course of years.

Let us consider the cause and recognition of renal embarassment before permanent damage is done!

To anyone who habitually uses his microscope on the urine of the most of his private patients I have no doubt it is often a matter of surprise that granular kidney is not more common

than it seems to be. How often you have seen the needle-pointed uric acid crystals and the milky way of myriads of oxalate of calcium crystals; and how long will these hard foreign bodies, with their infinite needle points and their keen knife edges, be poured down the urinary tubules before some real mischief is set up. We feel it surely cannot go on indefinitely; nay, we see spurious cylinders in numbers in these conditions, and no one will deny that they are evidence of renal unrest. You say to me that I cannot prove these crystals are in the urinary tubules during life? Well we *do* find them in the kidney in the form of calculi, and when the crystals are present in the urine for any prolonged period you will always find truly formed hyaline casts, and that without much difficulty.

The causes of such a urinary exhibition are generally a condition of habitual meat eating three times a day, indefinite indigestion and constipation. In addition to this history the patient will often complain of general depression and often of precordial distress and shortness of breath on exertion. On examination you will find high tension and a noticeable amount of edema.

I believe this is often the early stage or business end, so to speak, of granular kidney. Perhaps I should say the prophecy of granular kidney. We should all heed the warning and apply proper prophylaxis before irreparable damage is done.

If you follow your cases through a few years you will find that there is a first stage when as yet there is no albumin, no rising at night, no lowered specific gravity, but you will find frequently edema and casts.

The destruction to be meted out to the renal system is a question of degree, and may be overshadowed by cardiac distress, misinterpreted as a rapid oncoming old age or cut short by death through some other disease more apparent in its symptoms.

With the causes mentioned above of course go habitual drinking of malt liquors; chronic poisoning, such as lead or mercury; chronic infection, such as syphilis or tuberculosis, or, in short, any other habitual cause of kidney or arterial overstrain. Any condition or combination of conditions producing and maintaining an excessive high arterial tension will produce pathological results, and it is a matter of individual peculiarity whether the clinical manifestation shall be most apparent in the failure of the circulatory or the renal systems.

In regard to the diagnosis you will note that it will depend largely on the initiative and clinical skill of the physician. To review in detail is unnecessary.

Treatment.—The best treatment I know of is to make an early diagnosis, to give the patient a clear idea of the best habits of eating, drinking and working which will save the kidney and the body generally—and then see that your advice is followed. A man presenting a marked case of granular kidney depends for his continued existence upon high arterial tension and good cardiac action, yet I will venture to express the opinion that such a patient presenting himself for the first time will always have tension in excess of the renal requirements, and you will seldom make a mistake in attempting to reduce this unnecessarily harmful cardiac burden.

To begin with, you would do well to advise complete abstinence from meat or eggs for a week.

One good daily action of the bowels should be secured, assisted by salts if needed.

There should be a daily warm sponge, followed by a brisk rub.

Once or twice a week a mild sweat by warm bath, pack, or vapor bath immediately before retiring will be beneficial.

If there is edema I would advise the use of a diuretic. The best of them all is cream of tartar in one-half to one drachm doses three or four times a day.

Diuretin acts well in a few cases, but will not give satisfactory results after a week or ten days.

For bowel action pulv. jolapæ co. will act well, and may be used successfully if salts are not well borne.

Withal the patient should be warmly clad and protected from exposure or sudden morbid drops in temperature.

Great business strain should be avoided where possible, and the winter would be well spent in the South. In this connection I would suggest patients go prepared for cool evenings and warm days. No rooms should be secured that do not provide arrangements for a fire when needed; otherwise patients will often suffer more from cold in the South than they would have done at home.

The diet should contain a small piece of meat once a day, and of other kinds of food than the meats there should be a variety. Well chewed food will show a surprising economy over that carelessly eaten. Exclusive milk diet is harmful as well as depressing.

Malt liquors should never be used, but in the case of a drinker it is doubtful if a small daily portion of whiskey is very harmful.

Acute attacks occurring in the course of granular kidney do not differ from other cases in their treatment, but do not keep up too vigorous treatment too long.

In the very late stages it is a merciful and justifiable thing to allow a liberality in diet, and all irksome instructions should be withdrawn.

Some say the kidney has an internal secretion and that splendid results are obtained from feeding the cortical extract of pigs' kidneys. Some reliable writers have reported favorable results in a few cases. I have been giving Reed and Carnrick's tablets to a case of granular kidney with edema for a week past, and as yet there is no result at all.

A cheerful prognosis ought to be given all these cases. The specific gravity taken together with the quantity is a good indication of the renal condition and would only lead you astray in case there was a large quantity of albumin suddenly excreted.

Uremia, retinal changes, general skin lesions, all indicate a dissolution within a year as a rule. Cardiac failure is not so easy to forecast. Your prognosis will be best and easiest if you diagnose granular kidney before it is granular.

THEORY OF HEADACHE.*

By E. L. Williams, M.D.

Mr. President and Gentlemen,—Headache, taken broadly as meaning pain in the head, is one of our most common symptoms. Indeed, we meet it so often that we rarely place much value upon its presence or absence in making a diagnosis. It is only in those cases where a definite head lesion is present that it becomes important. The reason for this is that we are yet ignorant of its nature, that it appears and disappears we know not how. But we believe that it is not an accident, but the natural result of certain causes, and that its significance will some day be ascertained.

The value of pain in diagnosis is often a difficult question. Individuals differ to a remarkable degree; what may be insignificant to one may be agony to another. Again, in any condition of lowered vitality the experience of pain is usually accen-

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tuated. Therefore in an enquiry into a subject like that of this paper this fact must be kept in mind.

Various attempts have been made to classify headache. Thus it has been divided into organic and functional, or structural, congestive, toxic and nervous, or, based upon its anatomical seat, into external and internal. However, none of these classifications can be satisfactory until we have a more intimate knowledge of the subject. In this short paper I purpose to deal with but three forms: Headache due to referred pain, that due to increased pressure within the cranium, and toxic headache.

Referred Pain Headache.—By this I understand pain experienced in the sensory nerves supplying the outside of the cranium and the dura mater within the skull, but which is not due to a pathological condition locally situated. In other words, there is an irritative lesion at some point in the body which is interpreted in consciousness as a pain in the head.

The question of referred pain has been pretty fully investigated by physiologists, and although they differ as to the theory of its production there is little question as to the fact. Head says that "Any organ in the chest or abdomen may, under favorable conditions, cause referred pain in the head, accompanied by painful areas in the scalp. An area in the scalp does not stand in direct primary relation with any organ in the chest or abdomen, but is associated with the segmental areas of the trunk as low as the tenth dorsal. The lower the segment on the trunk that is affected the more posterior will be the tender area on the scalp; the higher on the trunk the more certainly will the pain and tenderness be found over the forehead."

When impulses pass up sensory, sympathetic fibres from an organ which is diseased they set up a disturbance in the segment to which they are conducted. Now, any second sensory impulse from another part which passes into this segment will be profoundly altered. The resulting stimulus conducted upwards towards the brain will appear exaggerated or may, perhaps, undergo some actual increase in its passage through the excited segment. Thus any otherwise painless stimulation may appear painful. It is probable that impulses passing from an affected internal organ up the white ramus of the sympathetic system produce an alteration in some of the cells of the posterior root ganglion. In these ganglia are the cells which are the trophic centres for the sensory fibres of the skin. Thus stimuli from an internal organ may produce such a disturbance in the ganglion that every stimulus from the peripheral distribution of the fibres

entering the ganglion appears as painful. This explanation of Head's seems to explain the fact of pain and tenderness occurring in the skin over an affected organ, but the reason why pain should occur in such a distant organ as the head seems at best vague.

Outside the occipital region the sensory fibres which supply the outside of the cranium pass by way of the fifth pair of cranial nerves. This nerve also sends branches to the dura mater within the skull. The deep origin of the fifth nerve is from a nucleus on the floor of the fourth ventricle. As this nucleus is situated not far from the nucleus of the tenth nerve it is believed by some that stimuli from the various viscera pass up the vagus and spread from its nucleus to that of the fifth nerve, and from there to the sensorium. But it is not necessary to believe that the afferent impulses pass by way of the vagus; it is quite possible that they are carried by the afferent fibres of the sympathetic to the cord and ascend through some of the afferent tracts.

Clinically this form of headache cannot always be distinguished. The pain is usually of a shooting, burning, neuralgia character, which is relieved by pressure, and is benefited by those drugs which lessen the activity of the spinal ganglia; thus besides the coal tar products, quinine and arsenic are of value.

Among headaches of this class that associated with eye strain is the most important. Any error of refraction or anything that tends to produce a permanent abnormal tone of the ciliary muscle will produce headache. The pain may be referred to any branch of the fifth nerve, but the most usual seats are just above the eyebrows and in the occipital region, the former being supplied by the supra-orbital branch of the opthalmic division, while the pain in the occipital region can probably be explained by the branches of the fifth to the tentorium cerebelli and the dura mater in this region.

From the thorax we may have a referred pain due to chronic lung or cardiac disease; thus in phthisis it is often a symptom. That due to cardiac disease may be of this nature, but offers another explanation.

One of the most common forms is that due to irritation of the sensory nerves in the walls of the stomach. This is often well seen after an indigestible meal has been eaten. The pain comes on almost immediately, and is only relieved on evacuation of the irritating material. This is one form of true bilious headache, but there is another more common form that receives this name. We often hear patients say that they can eat pork

one day with safety, but that if they eat it the next or the third day they will be sure to be " bilious." The cause of this I believe to be the accumulation of faulty digested products in the bowel. These are absorbed by the liver, thrown out in the bile, re-absorbed and again appear in the bile, and thus make the circuit I know not how many times. After a time they become so toxic that they irritate the walls of the bowel, and a referred headache is the result.

Another common form is that due to affections of the genital organs. These are richly supplied with sympathetic fibres, and headache is a symptom much complained of. It more often accompanies minor functional disorders than gross pathological changes, and is often associated with a neurotic general condition. It is in this class that I also would place migraine. In it, I believe, we have a marked picture of referred pain, but unlike the others that have been mentioned it is not associated with any definite viscera. It may be that it will be discovered to be associated with some particular organ or that it is the sum of stimuli from several viscera.

Before leaving this form of headache there is a correlative symptom worthy of notice, that is, vomiting. This not only accompanies irritation from the digestive organs, but is present in the other forms. It is not an uncommon thing to meet patients who have been dieting themselves like martyrs for years finally to have their whole trouble disappear when properly fitted with glasses. Almost with, or it may be before, the onset of the pain there occurs a cessation of the motor activity of the stomach and bowel. This is probably due to an inhibition of the vagus. It is this fact which leads so many of our patients to believe that their headaches are due to errors in diet.

Again, the pallor or flushing of the face seen in this form of headache is due to vasomotor influence, and in no way indicates anemia or congestion of the brain, which is to be treated by stimulants or depressants.

Headache Due to Increased Intracranial Pressure.—We have abundant evidence that increased intracranial pressure is a cause of headache. In such conditions as rapidly growing brain tumors and in some forms of hydrocephalus it is the principal symptom. That the pain is due to the pressure is shown by the fact that it immediately disappears after trephining. Just where the pain is located has been a subject of doubt. We know that although the brain itself is insensitive, that the men-

inges are richly supplied with sensory fibres. Also that the subarachnoid space which contains the cerebro-spinal fluid differs from other serous spaces in that its walls are in places separated by a varying interval and are joined by a more or less well-developed reticulum. In any increase in pressure in this space the sensory nerves in this reticulum would be put upon the stretch.

But outside of gross lesions, such as has been mentioned above, are there any minor temporary causes which may produce an increased pressure within the skull?

The brain lies suspended in a fluid which not only separates it from its bony cell, but fills the cavities in its interior. This fluid normally is in a state of equilibrium, that is, it is absorbed or secreted, accommodating itself to a varying quantity of blood within the cranium. But is it always so; may not this physiological function sometimes become disturbed and symptoms result? The cerebro-spinal fluid cannot be classed as ordinary lymph; more properly it may be called an internal secretion. It is secreted by the choroid plexuses found in the ventricles of the brain, and an investigation of these would lead us to suppose that they had a much greater function than is usually attributed to them. In structure they resemble somewhat a malpigian corpuscle of the kidney, which fact was noted by Hilton Fagge many years ago. This structure consists of a highly convoluted bundle of blood-vessels inclosed in a thin infolding of the pia mater. The afferent vessels come from the circle of Willis, while the veins of Galen form the efferent vessels. Is it reasonable to suppose that an increased pressure in the choroid plexus will produce an increased secretion of cerebro-spinal fluid? One fact might lead us to believe so, *i.e.,* tumors situated in the regions of the venæ gallenæ give rise to a progressive hydrocephalus. The increased flow of fluid would be analagous to the increased amount of urine secreted from partial pressure on the renal veins.

Again, the cerebro-spinal fluid is absorbed, at least in part, by the Pacchionian bodies. These have been called arachnoid villi. They are protrusions of the arachnoid membrane into the blood sinuses of the brain, and, according to Cunningham, they have a special function to perform. He says: "Through them fluid can pass from the subarachnoid space into the venous sinuses with which they stand in connection. Whenever the pressure of blood in the sinuses is lower than that of the fluid in the subarachnoid space and the ventricles of the brain, the

cerebro-spinal fluid filtrates through the Pacchionian bodies into the blood sinuses."

Can the occurrence of a dull headache in many temporary states of high venous pressure be accounted for by a disturbance of this function. As low arterial pressure means high venous pressure we might expect headache to occur in those conditions in which there was a fall in arterial pressure.

We are all familiar with the headache of exhaustion, which is benefited by a mild stimulant, such as a cup of tea. Again, in aortic disease headache is a usual symptom. In anemic chlorosis and all marantic states we have usually a lowered arterial pressure, and headache is a common symptom. Again, such drugs as lower arterial pressure are apt to cause headache, such as the nitrites, aconite, caffein and tobacco.

Clinically this form of headache differs from that due to referred pain. Instead of pain of a neuralgic character we have a dull ache or simply a full feeling in the head. If we enquire of the patient about tender spots on the scalp they are apt to tell us that the ache is inside the head. It is this form that is often best treated by a good meal.

Toxic Headache.—The third class of headache to which I wish to call your attention is that found in conditions in which other factors lead us to believe that some abnormal chemical agent is present in the blood. Thus, in diabetes, Bright's disease, lithemia, auto-intoxication, and a variety of other diseases that will readily come to your mind, headache is a usual symptom. The greatest difficulty in investigating the cause of the headache in these states lies in our ignorance of the exact nature of the toxin or ptomain present. For instance, in auto-intoxication we may have a variety of products depending upon the food taken, the bacteria present in the bowel, and the activity of the secretions. At one time we may get a product which acts like aconite and at another one with an action like belladonna or digitalis. Again, in Bright's disease we can hardly expect that the effete materials left in the blood are always the same.

If we take it for granted that these various toxins are the cause of the headache, we have yet to explain the pain. Alchin says: "It is permissible to believe that this symptom is due (*a*) to intrinsic nutritional disturbances in the cortical cells over a wide area; (*b*) to mechanical irritation of the cortical cells by the pressure of overful blood vessels, or (*c*) peripheral irritation of various afferent nerves of common sensation so stimulating the cortex cells as to produce headache." To these three

I might add a fourth. If the choroid plexus is a secreting structure and acts like the other glandular organs it may be supposed that its secretion may be influenced like they are. Thus certain drugs might cause an increased secretion and certain others the reverse. Likewise, toxins in the blood might act on the gland as upon the kidney. We know that the function of secretion is a powerful one, and if the absorption of the fluid was less rapid than its secretion increased intracranial pressure would result.

Information regarding the quantity and quality of the cerebro-spinal fluid in disease is yet but meagre, but it has been ascertained that the pressure is greatly raised in some conditions, and in chlorosis the severe headache has been relieved by withdrawal of the fluid by lumbar puncture.

In concluding, I may say that I have made no attempt to diagnose and treat the many different kinds of headache that are usually spoken of, but have rather endeavored to find some underlying basis of relation, believing that if we could understand the cause, our course of treatment would readily follow. But glancing over the field it is apparent that the large majority of headaches must be classified in the referred pain group, while an ever-decreasing number will be considered as toxic.

Of pain in such inflammatory conditions as neuritis, rheumatism of the scalp, irritative meningitis, and disease of the bones of the skull, only mention need be made, as in these we believe that the cause of the pain is apparent.

Discussion.

Dr. J. McArthur.—In order to elicit some preventive or curative treatment, during this discussion, I will dwell only in a practical way on the old-fashioned bilious or sick headache, sometimes called migraine, possibly all misnomers so far as we yet know. Perhaps less than 50 per cent. (and thus dealing very liberally with the specialists) can be alleviated by removing, as some think, the more frequent causes, visual disturbances and abnormal conditions of the pelvic organs, and still we have the sick headache, for which as yet no method of treatment has been discovered, either prophylactic or curative, and unless some suggestions from Dr. Williams' classification of headache, although mostly theoretical, will render us some assistance, we are still at sea regarding the causation. There is, no doubt, a close connection between stomach, the evacuation of which often comes to the rescue, and outward or functional headache; and while specialists often attribute the cause to the line or channel along

which they operate, notwithstanding, as they suppose, the carelessness of the general practitioner in faulty diagnosis, we still have to cope with a large percentage of these unrelieved headaches. Not the laboring man, but persons under a high nervous tension, associated with an active, busy life, are usually the victims, very common among our own profession. Few of us who have not been prostrated time after time with a bilious, nervous headache, as I cannot disassociate the terms, and from my own experience, and that of a great many others, there is a cycle or period in a man's life when he will be a victim to this trouble, and in the interval will enjoy entire and complete immunity for a certain length of time, which to my mind excludes errors in digestion as even a cause. Nor yet does the accumulation of so-called toxins explain this immunity to my satisfaction.

Dr. R. Ovens.—I congratulate the reader of the paper on the able and concise manner he presented this troublesome subject of headache to us. I consider your classification good, for it covers the whole subject. You showed wisdom and judgment in dealing with the cause and origin and diagnosis of headache, instead of spending time on the treatment of these already overdosed sufferers. My experience in the past has been that this class of cases has never lacked for treatment, and received the treatment, too, before any diagnosis. Treating any case before it is correctly diagnosed is poor practice, but throwing treatment into or at those unfortunate sufferers without a searching diagnosis for the origin of the trouble, was neither scientific, rational nor honest, and often resulted in injury to the profession. By using our modern means of diagnosis all, or nearly all, sufferers of headache due to referred pain can be relieved, and I feel safe in saying all cases of eye-strain class cured. There is a class of cases in the diagnosis of which I have had much trouble, in fact, they are the most persistent and rebellious to treat. In symptoms they belong to the migraine class. Headache at longer or shorter intervals follows an effort at reading, or after a drive or on returning from church or the opera; it generally commences while in the building, if well lighted. These sufferers look worried, and their friends often ask why they are looking cross. Any effort or strain on their attention soon becomes too overpowering, as the retina is over-sensitive and easily tired. In many and, indeed, most of these cases, there is absolutely nothing to be found wrong with the refraction or muscular efficiency of the eyes. At any rate, to account for the persistence and severity of the symptoms, the tone and capabilities of the ner-

vous mechanism of vision seems to be at fault. Such a condition is probably frequently of reflex origin, though the region from which the afferent stimulus proceeds is not often apparent. These are a class of cases, when you are sure of your diagnosis, you can cure by moral effect. Get them out of and away from themselves, as it were. The headache, when starting, instead of yielding to it, do not, but go on with the work, or drive, and patient suddenly becomes aware of the fact that employment and work improves their condition. At any rate, let them thoroughly understand that the proper use of their will power and work is curative. The gynecologist effects some brilliant cures with these sufferers, not from his doses to, appliances on, or operations with and in the uterus and appendages, but rather the moral effect he has created. She now believes the weakness is taken away; no longer yields to every little symptom; applies herself and becomes interested in work, and the headaches are gone. Unfortunately, not so in all his cases. If you keep track for a sufficient length of time you will be surprised at the small percentage that are even relieved by gynecological procedure, to say nothing about being cured. After her uterine treatments or operations the sufferer often returns to or writes the doctor, stating that her head still aches and cannot follow her usual occupation with any comfort. You prescribe a tonic, etc., rest, and with patience she will grow out of it. Does she? Unfortunately she grows into it, but her confidence in his professional ability grows out, and he sees no more of the patient. Other cases are referred to the oculist, after your store of operations and appliances have become exhausted, and the favorite prescription to cure "toxic conditions" failed. The oculist, after an examination of the eyes, finds nothing in their condition, at any rate, to account for these rebellious headaches, and sends the sufferer back to the gynecologist. After this she is in good shape to fall into the hands of the quack optician or Christian Science healer, becomes suddenly cured, and one of their strongest votaries. I would strongly urge on every medical man: Study up this subject; fit his office out with the necessary lenses and appliances, so that he can make a diagnosis of headache due to referred pain. In this way, and this way only, can he hope to retain in his clientele that numerous class of patients who suffer from headache. I feel safe in saying at the present time, not more than 25 per cent. of sufferers from headache ever go near or consult the family physician; the other 75 per cent. you will find in the parlors of the quack optician or at the counters of the drug stores, buying headache powders or other nostrums.

Dr. Seaborn.—I take the liberty of criticising Dr. Williams for not having attempted a classification of the causes of headache, as I am never satisfied unless I can really understand enough of a disease to put it in a class. We can classify only when we understand every attribute of every member to be dealt with. The classification usually given is: (1) Reflex or referred, as in eye-strain; (2) inflammatory, as in neuritis, meningitis, etc.; (3) neurotic, as in hysteria and exopthalmic goitre; (4) toxic. As the members of the toxic class are always increasing at the expense of the other classes, allow me to enumerate some of them: Anemia, nephritis, lithemia, gout, rheumatism, disorders of stomach and intestines, diabetes, fevers, intoxications by alcohol, lead, mercury, tobacco, etc., enlarged tonsils, absorption from any septic focus, as from decayed teeth, etc., fatigue, impure air. Pain is purely a subjective symptom, and as there are more varieties of people than of headache, it is often unwise to ask many questions about the quality and intensity of the pain. It is generally sufficient to know that we have pain and where it is. After that we must search for a cause in other organs. A specialist in mental diseases on one occasion showed me that insanity in a parent may be transmitted as epilepsy in the son, as rheumatism in the second generation, and as migraine in the third, or the descent may vary in many ways from this. Headache is only one of the symptoms of migraine, and in some attacks these other symptoms may occur without the headache. Thus we may have anesthetic areas or vertigo or vomiting. On one or two occasions when women have complained of letting things fall on account of numbness of the hands, I have been able to trace the connection of these symptoms with migraine.

It is a peculiar fact that many of the cases of tumor of the bladder occur among workers in aniline dyes.

In the aged pain and disability in the arm after traumatism demand especial care in examination of the shoulder. Fracture of the head of the humerus is often overlooked.

Fractures of the head of the radius are probably more common than generally supposed, being overlooked frequently because of the absence of the ordinary signs of fracture.

In the performance of the radical operation for breast carcinoma it is important to avoid injury to the periosteum of the ribs.—*American Journal of Surgery.*

CARE OF THE PERINEUM IN CONNECTION WITH LABOR.*

By J. McArthur, M.D., London, Ont.

Mr. President and Gentlemen,—In directing your attention this evening to the "Care of the Perineum in connection with Labor," one might feel that an apology for presenting the subject is necessary; but not so, when we realize that injury to the perineum is perhaps the most common accident occurring in normal, natural labor, that is, even in vertex presentations. I might also defend the object of the paper when we consider that labor in woman was foreordained as a curse, even in the most natural way, with suffering and difficulty, and still made more difficult by the intellectual evolution of the human race, which has increased the brain, and consequently its coverings, membranes and skull, without a corresponding increase in the pelvis. Thus labor in all its bearings becomes more than a physiological process, and as a consequence art must keep in the race, and come to the rescue to help nature in preserving the perineum during its most severe test.

The higher the social circle, or, as is claimed for it, the greater the culture and refinement, the more it is opposed to nature's remedy for safe delivery, and perhaps we all notice along this line a corresponding difference between labors in the working classes and women who have not to earn or help to make their living, more especially in reference to the perineum.

Accidents to the perineum occurring in 30 to 35 per cent. primiparæ, and perhaps 10 per cent. in multiparæ, although in the latter less formidable and more easily avoided than in primiparæ, and more likely to occur in a perineum that has been restored than one in which there has been no breach of continuity. I feel this percentage is not too high, and will occur in the hands of most skilled attendants. At any rate, the injury is so common that we no longer hesitate to examine the pelvic floor after labor, and make no bones of allowing the patient to know whether or not there has been a tear by our attention being directed to its examination and restoration when required.

While we will not dwell on the anatomical structure of the parturient canal, still we must keep in mind that part of it in

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connection with the pelvic floor, muscles, bones, fascia, vessels and nerves.

Measures and methods without number have been thrust upon us by obstetricians for preventing lacerations and preserving the continuity of the perineum, and notwithstanding all these the means at our disposal of any practical value are very limited indeed, but a few observations under the following heads may be beneficial to our mutual helpfulness:

1. *Control or modification of the expellant forces, not forgetting that resistance is offered by the parturient canal (fascia, bones and nervous supplied muscles).*—(*a*) Ask our patient to check or increase the voluntary expulsive efforts, which can sometimes be done, as both the central and sympathetic nervous systems are involved in labor; (*b*) encourage her to cry out as the head rolls out, perhaps more applicable to multiparæ, and is often accomplished between the pains; (*c*) place her on left side, thus modifying force of gravity; the weight of uterus and fetus work in opposition to the ordinary expellant forces; (*d*) administration of chloroform, which abolishes the pain and paralyzes the abdominal muscles; labor simply continued by uterus modified by the anesthetic; beginning its administration when the vertex touches the pelvic floor or bulges the perineum with every pain; I say chloroform in preference to ether, as it can be more rapidly given and not so complicated to administer, and can be given more easily by a nurse if we require to resort to her assistance in that way, but not advisable; perhaps it is not too extreme when I recommend in every case requiring the giving of chloroform that a qualified anesthetist should have full charge of that end of the patient, under your direction. Whether or not surgical anesthesia is required, the importance of this is apparent when we know that often justice cannot be done our patient if only single-handed; (*e*) to mark time, which is a great factor, can be helped by opium or morphia; from beginning of labor which has a tendency to work both ways, delay and dilate.

2. *Procedure.*—Manipulation (not a good word, as it savors of meddlesome midwifery) before the test to render the vulvar ring more elastic, and during expulsion to equalize the tension. Under the first may be mentioned the following, although the utility of them may be questioned. Massage with some unguent before labor begins at all; pouring in Lysol solution if parts become dry and hot; placing two fingers in the vagina and, as it were, drawing outwards of the perineum during a pain, a

manoeuvre which, when it is necessary, stimulates the perineum from above, as well as stretching of the endangered area; applications of warm or hot pads to the parts, which at least is most comforting to the patient. Possibly all these methods have a place.

3. *Efforts at our disposal during the expulsion of the head (or, in other words, the real test).*—Under this head my remarks are more applicable to primiparæ. Patient on left side, near edge of bed, legs drawn up (thus relaxing the psoas muscles and giving more room at brim), and we thus remove the force of gravity, gives us more control of the presenting part, and makes occular inspection of the endangered area more convenient. Bowels empty, bladder of course, same, and if we have been able to delay head on perineum for at least half an hour, and with all the means mentioned above, or some of them, having been taken advantage of, we now allow the expulsion of the head to take place, as of course there is objection to the presenting part remaining too long on the perineum, and only experience helps us to judge when to let the head pass.

And just here the question arises, what to do if pains too weak and getting more so. Whether to give an opiate and allow woman to rest for hours, or profound anesthesia, and take lots of time with forceps to deliver, usually latter resorted to, but when the saving of perineum the object, would advise the former method and perhaps avoid use of forceps altogether. It just strikes me here there is not much danger to the parts if the perineum remains thick and soft, but so soon as it becomes elongated and thin, then look out.

Most procedures to prevent injury to this part are not only useless but possibly mischievous, but will mention a few, which have proved the most satisfactory to me:

To assist the occiput to come further forward and escape under the pubic arch, *e.g.*, forcing or continuing flexion longer, I place my right hand protected by a pad, especially covering the arms, with points of fingers on after part of left labia and thumb on right opposing part, with the head covered by perineum in the hollow of my hand, as it were, squeezing the two labia together to relax the central tension; in other words, moderate counter pressure on head with the hand.

Object of the hand not support the perineum, but steady and regulate the expulsion of the head, the moulding of which should not be interfered with. I'll admit the objectionable feature of the hard hand.

I do not use left hand at all, as so often recommended by obstetricians, to keep up the flexion; object in view in this plan, as you will understand, is to keep the sides of perineum together, thus pressing forward the head and retarding somewhat expulsion. Any other manoeuvres, finger in the rectum, etc., trying to direct the head through the vulvar opening, have not been of much avail to me. Episiotomy out of question, as an almost inevitable or impending rupture may be avoided.

Placing sutures in the perineum before the tear does not appeal to me, and now as the head emerges, perhaps without any visible tear, still our vigilance must not be relaxed until the whole body is born, still watching the force from above (*vis a tergo*) and relieving whichever arm comes easier, better the anterior one, not forgetting that the hips may enlarge any rupture already started, as I feel the order in which the giving way takes place is fascia, muscle, mucous membrane, and last the skin, especially in the deeper wounds.

Another circumstance that might avert or limit a laceration and prevent undue strain on the resisting girdle, and which has proved itself satisfactory to me, especially when applying forceps, viz., to stretch out or down legs of patient just at the test, and sometimes acted on voluntarily by patient. More especially applicable to forceps cases in lithotomy position.

It might be well to mention here some of the circumstances which jeopardize the integrity of perineum:

All deformities of pelvis and malpositions of child; tough, non-elastic or resisting ring of tissue, found in both very young and old primiparæ; over 35 the elasticity is very limited, while in delicate, thin, anemic women perineum often very yielding; large fetus; small vagina; perineum too long and body too thin; precipitate labor; unskilled use of forceps; protracted labor; powerful contractions; delay of head on perineum will also make the parts dry and unyielding; strong, healthy, muscular women require extra watching.

Now, regarding treatment of wound when it does occur, a few observations will not be out of place and perhaps give more scope to the discussion. We must bear in mind at the outset, first, that every case of labor should be treated surgically; second, that a restored perineum is never the equal of one not requiring restoration.

So that the most delicate task that confronts us during the second stage of labor is if possible to preserve the perineum.

In primipara, if any marked degree of rupture occurs and

a proper anesthetist is not at hand, better to allow woman to rest a few hours, the necessity for which is apparent, and return, and with patient properly anesthetized (ether perhaps more indicated at this stage) and the lithotomy position assumed and sutures introduced in the regular way.

First suture one-half inch in front of posterior part of tear and one-half inch apart to and including edge of fourchette, being careful to avoid pockets in sulci; silk-worm gut, of course, remaining in four or five days, treated surgically. And right here I deprecate the use of irrigation for cleansing for at least the first five or six days. Allow inside to take care of itself and wash outside; no solutions, except soap and water, from beginning of labor to the termination of the puerperium; Lysol simply as lubricant.

Primary perineorraphy invariably heals by first intention, and my reason for recommending delayed suturing is that the more favorable circumstances give us the best results; and am not certain but that even no matter how accurate the coaptation of the divided parts with favorable union is effected, time reveals the fact often that the body of the perineum is gone and we have simply mucous membrane and skin perfectly united, even if not in apposition as formerly, and perhaps even this result may be attributed to the secondary operation. If, however, for reasons of our own we decide to repair at once, it can be accomplished without chloroform, as the sensibility of the perineum is often numbed, and by placing patient on left side and near edge of bed, and parts exposed to a good light, we can sometimes do our patients justice, and secure a fair perineum. The same directions and precautions applicable to immediate repair as to delayed suturing.

Even if only fourchette is torn it should be repaired, and it occurs in about 65 per cent.

Complete rupture of the perineum, *i.e.*, through the sphincter ani and into the rectum, which seldom occurs unless unusual force is practiced, we will not consider, as the operation for its repair is more radical and requires the services of a specialist.

Perhaps laceration of one of the lateral sulci of the vagina is more common than we imagine, which so injures by overstretching of the levator ani muscles and accounts for the subsequent relaxation and pelvic organ displacement. Nature often comes to the rescue and, without repairing, unites by first intention a torn perineum, or by granulation and cicatrization, when we will have an unyielding pelvic floor.

I will not refer to the consequences of an ununited perineum, nor yet to the extra danger at the time.

Now, in conclusion, Mr. President and gentlemen, for these rather thrown together observations I claim very little originality, as we are all so apt to imitate rather than emulate, but have given what experience and reading have helped me to imbibe.

And while I might have said a good deal more, still the object of my opening the discussion on this subject to-night will be achieved provided some of the chief factors and extreme ideas have so enlisted your interests as to provoke a good free discussion.

Discussion.

Dr. Seaborn.—No one could find fault with Dr. McArthur's paper. All his statements are orthodox. Still, I would like to show the reverse of some things: First, There is an element of danger in giving hypnotics and waiting when the pains are not strong enough, and that is, that the pains may come on before you have returned, and the perineum be ruptured. Of course, we have no fear when we have a capable nurse and when our patient is in an hospital, but that is not always. Second, That primary repair is always successful. That appears to be so, but often we have union of only the skin and mucous membrane, or at least the body of the perineum is only thin and may easily give way under any strain and so produce prolapse, etc. I believe that no perineum is ever as strong after rupture, no matter how skilfully repaired. Third, That too rapid expulsion may be the cause of rupture. Very true, but the converse is also true. When expulsion is too slow after the head has reached the perineum, the floor becomes swollen and edematous and very liable to rupture. Many women expect chloroform to partial narcosis from the very first, and I believe that chloroform may be the cause of rupture when it delays delivery too long. Dr. McWilliams speaks of kneading the perineum with the thumb inside the fourchette. This is excellent. Pains are not necessary to relax the perineum if only the head be pressed down and retracted in succession, and the place of the head may easily be taken by the accoucheur's hand. I have often adopted this method, but have used the first two fingers instead of the thumb in an attempt to massage more of the levator ani muscle than can be reached with the thumb. Dr. Meek speaks of preventing rupture by keeping the head flexed until the occiput passes under the pubes. Very good, but when the nape of the neck is against

the pubes firmly the rupture has probably begun. I believe in unavoidable ruptures. The rupture has taken place before the nape of the neck is firmly against the pubes. I should be pleased to have some others' opinion on this point.

Dr. Ferguson.—For the protection of the perineum two points in the mechanism of labor should be kept in view in vertex presentations, viz., the promotion of flexion of the head until the occipital protuberance passes the sub-pubic ligament, and thereafter the favoring of extension of the head, so that the smallest or suboccipito-bregmatic diameter, instead of the occipito-frontal, may be the one to pass through the vaginal outlet. Too rapid expulsion of the head was doubtless the most frequent cause of perineal tears, insufficient time being given the muscles in which to stretch instead of tear. On this account he thought that time and chloroform were important safeguards. To delay the too rapid extrusion of the head, the proper manipulation was to exert pressure on the presenting part of the head, and not on the perineum. He did not experience any danger to the perineum in stripping it back over the presenting part, if expression were attempted in the interval between pains, nor did he find any ground for objection to the repair of tears between the birth of the child and the expulsion of the placenta.

A Mercier catheter is the first kind that ought to be employed in attempting to overcome retention caused by an enlarged prostate. Often it will have to be resorted to in the end; and, therefore, it will save much unsuccessful manipulation to use it at once. Occasionally a metal catheter will pass when even a Mercier fails.

Occasionally, contractures of the fingers following the treatment of a cellulitis of the hand and forearm may be due, not to the cellulitis itself, nor to the incisions made to relieve it, but to fibrosis and shortening of the flexors in the forearm, the result of too tight bandaging or strapping. Such a condition—Volkmann's ischemic muscle contracture—must, therefore, be distinguished from the stiff, flexed fingers produced by the cellulitis. Passive motions and massage are helpful in both conditions, but in the former, bone shortening (radius and ulna) is necessary to accommodate the contractured muscles.—*American Journal of Surgery.*

Clinical Department.

Note on a Case of Infection during the Puerperium Simulating Psoas Abscess. WILLIAM AYRES, B.A., M.D. (DUB.) in *The Lancet.*

On April 25th, 1903, I attended a patient in her fifteenth confinement. I had attended three previous confinements. The labor was most uneventful. I arrived just in time to be present at the birth of the child. On the fifth day of the puerperium the patient had a rigor. The temperature was 99 deg. F., and the pulse-rate was 100 per minute. I douched out the uterus and put the patient on a quinine mixture. I examined the uterus and adnexa most carefully but could find no reason for this rigor, and as the temperature remained normal, thought I was free from all trace of puerperal infection. On the twelfth day of the puerperium the patient began to complain of pain in her left leg, which gradually got worse and the leg began to contract until the knee was at right angles to the body. The pain was relieved by suppositories of morphine. On the fifteenth day of the puerperium a small hard lump of the size of a Tangerine oragne began to appear to the left of, and below, the umbilicus. This lump was very hard and immovable and was thought to be an inflammatory swelling in connection with the broad ligament pressing on the lumbo sacral plexus; it grew very slowly. The temperature never went beyond 99 deg., and that was reached only once or twice; the pulse-rate was never beyond 100 per minute. On May 18th I had for private reasons to leave my practice and I gave instructions that a colleague should see the case in my absence if the pain became unbearable. My colleague came to the conclusion that the lump was of a cancerous nature owing to its hardness and immovability and also the absence of any very definite temperature and pulse-rate. It was decided, therefore, as there was some doubt as to the exact nature of this lump to give the patient the benefit of an operation. After consultation Dr. F. Edge, of Wolverhampton, kindly undertook the operation, which was performed at the Nursing Institution, Wolverhampton, on June 9th.

After the preliminary laparotomy a hard lump was discovered behind the sigmoid flexure, which was fixed but not involved anteriorly or laterally. As owing to its position removal of the mass if malignant was impossible, and incision into it pregnant with danger should pus have been struck, as

it would have had to drain through the peritoneal cavity, it was decided to await events, and the abdominal wound was accordingly stitched up again. The uterus and adnexa were found to be in a perfectly healthy and normal condition. The patient stood the operation well and made a good recovery. The temperature several times reached 101 deg. F., and the pulse-rate varied from 90 to 110. She seemed to be in rather a typhoid condition, but at the end of three weeks she improved and went home.

There was no doubt as to sepsis of some kind, but it was held to be due to mischief in the sigmoid flexure or infection of the mass from the intestinal canal, but the mass was so hard and firm that the possibility of sarcoma was not excluded, and the question was raised as to whether an artificial anus might not be required later.

Ten days after the patient's return home the lump suddenly disappeared from above the brim of the true pelvis and presented itself in Scarpa's triangle, where it was seen to be inflammatory, and was accordingly opened. The patient was up and about again in another two months.

The lymphatic glands involved were the left common iliac and lower lumbar glands, and it is possible that the lesion in such cases is due to injury to the rectal tissues during labor.

A most interesting case of a similar nature has recently been reported by Dr. T. J. Watkins, Professor of Gynecology at the North-Western University, Chicago, but there are so many points of difference in the two cases that perhaps a report of my case may be of interest to the profession.

I am indebted to Dr. Edge for the kind use of notes during the time that the patient was under his care.

Lithopedion Carried Twenty-Six Years or More. H. W. More, house, M.D., Danville, Ill., and E. H. Griswold, M.D., Peru, Ind. in *J.A.M.A.*

History.—Mrs. B., aged 62 years, commenced to menstruate at the age of fourteen years. Menstruation was always regular and painless. The patient was married at the age of twenty. Her first child was born March 13th, 1866; the second was born Sept. 16th, 1867; the third, Oct. 9th, 1869; the fourth, Aug. 16th, 1871. She missed a menstrual period in July, 1880. In August she had a sharp attack of abdominal pain requiring rest in bed and morphine; three days later she had another attack

still more severe, necessitating confinement to bed for almost a month. In September there occurred a very severe attack of pain accompanied by symptoms of collapse. She was confined to her bed for three or four weeks thereafter, and was not well enough to return to her home, a short distance in the country, until November. In December a colored uterine discharge appeared, the first since the preceding June. At this time there was a discharge of a fleshy membrane. From this time menstruation was regular and painless until 1886, when she had a severe attack of peritonitis confining her to bed for about three months, after which menstruation was again established and remained normal until 1894, when it ceased permanently. During all this time there was abdominal soreness and distress occurring at irregular intervals. It was finally discovered during one of these attacks in the early part of 1906 that there was a movable abdominal tumor to the right of the median line low down in the pelvis.

Operation.—Abdominal section, made June 5th, 1906, disclosed the abdominal tumor to be a lithopedion surrounded by and attached to omentum and intestine. There were no attachments to uterus, ovaries or tubes. Recovery was uneventful.

The specimen is complete in every respect, even to the preservation of the bones of the hands. It is a perfect skeleton of a fetus of five or six months, flexed on itself as *in utero,* as is shown in the accompanying illustration. This is a perfect picture of the specimen, as it was lifted from the abdominal cavity without any covering or vestment whatever except occasional small bodies of adipose tissue.

The omentum and the ileum were adherent to lithopedion by a very small band just beneath its submaxillary. The calvarium, which is somewhat collapsed, is filled with a caseous mass. The whole is covered by a closely adherent thin fibrous tissue. The specimen is now in the museum of Rush Medical College.

Ventral Hernia During Pregnancy. Ernest F. Robinson, M.D., Kansas City, Mo., in *J.A.M.A.*

The following case is reported as a demonstration of the efficiency of "vertical overlapping" operation for ventral hernia. No severer test could be demanded than the experience of this case.

Patient and History.—Mrs. H., aged 23, was seen in consultation with her attending physician, Dr. Trexler, June, 1905.

She was a little over three months pregnant, and was suffering from a hernia. About one year before, she had given birth to a still-born child. This labor, her physician told me, was very severe and prolonged, and he feared the result should she undergo a similar experience with the hernia that existed.

Examination.—A rupture at the umbilicus about the size of an orange was found, the hernial ring admitting the tips of two fingers. The hernia apparently contained omentum and at times, on straining, a knuckle of gut could apparently be felt. The contents of the hernial sac could be only partially reduced.

Operation.—Under ether anesthesia a transverse elliptical incision was made around the hernial sac, down to the deep fascia. The sac was freed from its attachments at the ring. It was opened, and the contained omentum, which was greatly thickened and adherent, was dissected free, tied off with catgut, and dropped back into the abdominal cavity. All about the ring, the fat was dissected free and a small incision, one-half inch deep, was made on either side of the ring. Then from above downward, the tissues were brought together as flaps, making the upper slip over the lower, as advised by the older Mayo. This was accomplished by inserting two mattress sutures of hemp into the edge of the lower border of the ring and passing the thread underneath the upper border and bringing it out two inches above. These sutures held the flaps in position, but they were, in addition, united by several buried catgut sutures. Thus, in place of the hernia, there existed a double layer of abdominal wall. The skin wound was closed without drainage.

Post-operative History.—Immediately following the operation rather severe vomiting occurred, but the line of sutures held well and primary union resulted. A little less than five and one-half months later the patient gave birth to a large, healthy child. It was a face presentation and labor was much protracted, but the line of union held firmly.

The only complaint the patient had to make was that she no longer had a navel, but was like her great ancestor, the original Adam.

In acute (septic) osteomyelitis immediate operation is not too radical; in chronic osteomyelitis patient waiting is often not too conservative—the final expulsion of a sequestrum may be all that is necessary to effect spontaneous cure.—*American Journal of Surgery.*

Rupture of the Inferior Vena Cava. Wm. St. Clair Symmers, M.B., C.M. (Aberd.), in the *Lancet.*

I recently performed a post-mortem examination on a boy in whose thorax the following unique condition was found. A lad aged 16 years was brought to the Royal Victoria Hospital, Belfast, with the history of having been kicked in the chest by a horse. The patient survived for several hours, dying about four hours after the infliction of the injury. At the necropsy the skin over the chest was found to be normal in every respect; there was slight hemorrhage in the right pectoralis major near its sternal attachment; the sternum was snapped through transversely just below the attachments of the third costal cartilages, the underlying mediastinal tissues being slightly ecchymotic. The pericardial sac was distended with dark blood containing a single large dark-red clot. The anterior surface of the heart was uninjured. The inferior vena cava was ruptured to the extent of exactly one inch on its anterior aspect, the rupture beginning at the auricle and running straight down the wall of the vessel. This rupture was gaping so that the orifice was oval in shape and nearly a quarter of an inch wide. Apart from some very slight hemorrhage near the head of the pancreas the other organs were normal.

A Case of Surgical Emphysema (?) of Unusual Origin. Henry Power, M.D., Spokane, Wash., in *J.A.M.A.*

While acting as surgeon to the Spokane division of the Great Northern Railway I was, on July 24th, in charge of a case giving the following history, part of which was furnished by officers of the wrecked train:

History.—The victim of the accident, a healthy man of about 30 years of age, was seated in the forward part of the smoking car when the engine, mail car and baggage car left the track and ran down an embankment into a deep lake. The car in which the patient sat was also about half submerged. He, though shaken up, retained control of himself and made his way through the window and remembers swimming in the lake. An employee who stood on the bank states that he offered the swimmer the end of a stick in order to draw him to the shore; before this could be done, however, one of the tanks of acetylene gas, which had broken from its fastenings, was seen to have taken fire, and, floating on the surface of the water, was dis-

charging a large jet of flame from an orifice with great force. The tank, floating past, threw the flame full in the face of the swimmer, rendering him unconscious for one or two hours. On examination severe burns were noted on the hands and face, and in the cavity of the mouth and pharynx, and on stripping the patient marked emphysema was seen extending on both sides from the lower jaw to the lower end of the sternum, being most marked about the neck and upper chest. There was marked dyspnea and some pain was complained of about the neck and pharynx and to some extent about the right clavicle.

For some days the patient seemed in serious condition, but there was little if any rise of temperature. Some expectoration of a bloody nature was noted and at times small black masses were mixed with the blood. The emphysema had extended slightly over the abdomen, but was not so marked above, leading to the inference that the pressure was only in process of equalizing and that the total quantity of air had not increased since the accident.

During the subsequent stay of the patient in the hospital careful examination failed to show any fracture of ribs or clavicle, and the case made a slow recovery without new symptoms of importance. Up to the middle of October there persisted a slight amount of gas in the upper abdominal wall.

None of the commonly accepted theories of the etiology of emphysema explains this case. Possibly the sudden pressure in the mouth and pharynx caused a rupture into the subcutaneous tissues, allowing gas to escape into them.

A Case of Graves's Disease Treated by Rodagen. J. Ronaldson Russell, M.R.C.S. (Eng.), L.R.C.P. (Lond.), in the *Lancet*.

Rodagen is described as a mixture of milk-sugar and the dessicated milk of a goat from which the thyroid gland has been removed. It has been used with apparent success in cases of Graves's disease, and the following is an account of a case in which I was able to try the effect of the drug. Messrs. R. W. Greeff, Eastcheap, London, kindly provided me with a supply of rodagen sufficient for a six weeks' trial. The previous history of the case before commencing rodagen was as follows: The patient was an unmarried woman, aged 29 years. She first consulted me in May, 1905, on account of loss of weight amounting to 14 pounds in three months. She suffered from profuse

perspirations; exophthalmos was marked, and neither Stellwag's nor von Graefe's signs were present. There was uniform slight enlargement of the thyroid. Tachycardia was present, the pulse varying from 120 to 160 per minute. No cardiac murmur could be detected, but the pulsations of the thyroid and of the large vessels of the neck were noticeable to the patient herself. Tremor of the hands was present and a feeling of weakness in the knees. She was sent to a farm-house, where she had four pints of milk per diem in addition to ordinary diet, and was kept at rest in the recumbent position out of doors for one month. She was also given bromide and tincture of digitalis but without apparent benefit from these. On the other hand, the dieting and the rest apparently were of large benefit to her, and all the symptoms became less severe and she increased in weight 7 pounds. Treatment by rodagen was commenced on June 17th, 1906, her weight being then 9 stones 4 pounds. She was first given 5 grammes per diem and afterwards 10 grammes. On July 16th her weight had increased to 9 stones 7 pounds, and on August 7th she weighed 9 stones 12 pounds. At this date the treatment was discontinued. The weather during the whole of the time she was taking rodagen was very hot, and the patient said that she was never so well in hot weather. Since taking the rodagen she states that the diarrhea has certainly been less frequent. She has slept better and the weakness of the knees has not troubled her so much nor has the tremor. The headache, palpitation, and throbbing of the neck have, however, been much the same as before. I should certainly try the treatment again in any case where the expense was not prohibitive. I am quite aware that no definite arguments can be drawn from one trial of the drug in one case, but from other cases which have been reported I think that the drug deserves a further trial.

A bright and altogether satisfactory light for throat examinations can be had cheaply by covering a 16-candle-power Edison electric bulb with a smooth layer of plaster of Paris, about three-eighths of an inch thick, leaving on one side an aperture the size of a silver half-dollar, or larger. The white inner surface of the plaster brilliantly reflects the light. The outer surface may be painted black for appearance's sake.—*American Journal or Surgery.*

Society Reports.

THE ONTARIO MEDICAL ASSOCIATION.

The Committee on Papers announces that the series of papers to be read at the next meeting, dealing with the relation of the profession and the public will be read under the following titles:

1. "The Medico-Legal Aspects," by Dr. G. Silverthorn. This paper will take up the question of the appointment and remuneration of coroners; the selection of expert pathologists for autopsy work and proper remuneration; the present undesirable method of retaining experts in legal cases; a discussion of the present irresponsibility for the payment of fees in legal cases, and a comparison of all fees with those of other countries.

2. "The Public Health Aspects," By Dr. J. W. S. McCullough. The need of the appointment of county health officers; compulsory vaccination; remuneration for the registration of births, deaths and infectious diseases, and that attendance upon the poor should be remunerated by the municipality; the organization of the profession, and how to deal with the dead-beat.

3. "The Ideals of Asylum Work for Ontario," by Dr. C. K. Clarke.

4. "The Infection of Drinking Water," by Dr. J. A. Amyot.

The following have promised with some reservations at this early date to discuss these papers: Drs. C. A. Hodgetts, R. Haikes, W. R. Hall, will take up certain portions of Dr. McCullough's paper; Drs. Beemer, Burgess, of Montreal, J. Russell and W. N. Barnhart, Dr. C. K. Clarke's, and Drs. Starkey, of Montreal, and W. T. Connell, Dr. Amyot's paper.

The Committee on Arrangements wishes to announce that there will be a smoking concert on the first evening and on the second a dinner at one of the large hotels, at which a distinguished guest will speak, whose name will be announced later.

When removing a lipoma or other growth from the inner surface of the thigh, a little care should be exercised in order to avoid cutting the long saphenous vein. Ligature of that vessel (especially in ambulant and in non-aseptic cases) may be followed by a distressing phlebitis.—*American Journal of Surgery.*

Physician's Library.

The Journal of Inebriety after thirty years of continuous studies of the disease of inebriety and drug taking begins its new decade by entering upon comparatively new field of physiological and psychological therapeutics, for the treatment of these neuroses. Arrangements have been completed by which *The Archives of Physiological Therapy* has been consolidated and will hereafter be published as a part of *The Journal of Inebriety*. This very able monthly has been developing parallel lines of study with *The Journal of Inebriety*. In the opinion of its managers its scientific value would be greatly enlarged by concentrating its work along some special lines. The disease of inebriety and its allied neuroses is a field of most practical interest, hence *The Journal of Inebriety* is selected as a medium for continuing the work of *The Archives of Physiological Therapy,* henceforth. Arrangements have been completed by which *The Journal* has presented, the therapeutic effects of hot air, radiant light baths, electricity, massage, psycho-therapeutic measures, and other physiological means will occupy a prominent space. This effort to clear away the confusion and broaden the studies of therapeutic means for cure will make *The Journal of Inebriety* one of the most practical and valuable visitors to every hospital and institution, as well as to all specialists who treat brain and nerve neurotics. We shall aim to present and formulate the latest studies and facts along these frontier lines, and in this way lift the whole field of therapeutics out of its present empiric stage into one of rational therapeutics.

Anatomical Nomenclature. With Special Reference to the Basle Anatomical Nomenclature (BNA). By Lewellys F. Barker, M.D., Professor of Medicine, Johns Hopkins University; formerly Professor of Anatomy in Rush Medical College, Chicago. With vocabularies in Latin and English. Two colored and several other illustrations. Octavo. Cloth, $1.00 net.

The Basle Anatomical Nomenclature—popularly referred to as the (BNA)—is the result of an earnest, concerted effort to

systematize and simplify a nomenclature which has grown in haphazard manner, become burdened frequently with multiple designations for one structure, and in general has deteriorated in scientific accuracy and value.

The expression (BNA) is a shorthand title for a list of some 4,500 anatomical names (*nomina anatomica*) accepted at Basle in 1895 by the Anatomical Society as the most suitable designations for the various parts of the human anatomy which are visible to the naked eye. The names are all in correct Latin and have been selected by a group of the most distinguished anatomists in the world, working six years at their task, as the shortest and simplest available terms for the different structures; the majority of the names were already in use in the various standard text-books, but some of them were selected from anatomical monographs not considered in the text-books, and a few of them are brand-new terms, introduced into the list, where an examination of the literature and of anatomical preparations showed that none of the names hitherto coined was satisfactory.

One name only is given to each structure, and the mass of synonyms which encumbered the text-books can thus be swept away. If one of the larger text-books of gross anatomy be examined, as many as 10,000 names will be found employed, the half of which are synonyms; and if the anatomical terms used in the various standard text-books be collected into one list, the total number amounts to more than 30,000. It is no small achievement to have reduced the necessary number of names in gross anatomy, as it is known to-day, to less than 5,000—an achievement for which both students and teachers of the subject must be thankful.

Even more important is the exclusion from the list of all obscure or ambiguous terms, each name employed having a definite and easily ascertainable meaning. The construction of the list has led, too, to the establishment of certain general principles regarding the formation and use of anatomical names, and these principles promise to be of great service in simplifying nomenclature and keeping it uniform as anatomical science continues to develop.

The (BNA) makes no attempt to limit the language of research, but only to supply a list of simple terms, free from ambiguity, for common use. Simplicity, accuracy, and serial connection will be favored by the uniform and consistent use of the (BNA) for the structures studied in the schools. The teacher's work will be simplified and the pupil's task will be

lightened; instruction will be unhampered, research will flourish, and anatomical science will gain in dignity and in precision.

The (BNA) is already so widely used in English and foreign tongues by teachers of and writers on anatomy, physiology, histology, pathology, embryology, zoology, etc., that Dr. Barker's book is most timely in its publication.

In no other work in English are the purposes of the (BNA) described, its scheme explained, and its vocabulary given.

The Doctor's Recreation Series. Vol. V.—The Doctor's Window. Poems by the Doctor, for the Doctor, and about the Doctor. Edited by INA RUSSELLE WARREN, with an introduction by WILLIAM PEPPER, M.D., LL.D. General Editor of the Series—CHARLES WELLS MOULTON.

To those who love poetry and have the poetic heart this volume will strongly and readily appeal. Its value is enhanced by embracing gems from distinguished pens: O. W. Holmes, Eugene Field, James W. Riley, S. Weir Mitchell, S. Baring-Gould, J. G. Saxe, W. H. Drummond. There are some also from pens of men distinguished in the ranks of medicine: John Cheyne, Frederick Peterson, Edward Jenner and John C. Hemmeter. The illustrations are: "A Cure for the Gout" (Dendy Sadler), "The Anxious Moment" (B. Vantier), "The Doctor" (Luke Fildes), "The Post-Mortem." The book well keeps up the excellence of the preceding volumes.

The employment of adrenalin as an application with cocain to the mucous membrane of the cheek, *e.g.*, for the excision of a leucoplakic ulcer, is not to be advised. There may be severe secondary hemorrhage.

Everything is to be gained and nothing to be lost by having patients remove enough of their clothing to allow of a completely satisfactory examination in all cases. Instances can be called to mind by any physician of erroneous judgments arrived at before exposure of other parts of the body showed conditions altering one's opinion. Especially is it important to compare the corresponding members of the body on the sound and the affected side in all doubtful cases.—*American Journal of Surgery.*

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ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

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COMMENT FROM MONTH TO MONTH.

The sudden death of Sir William Hingston calls away a distinguished member of our Canadian profession. A fine type of man, he possessed all the qualities which go to make a gentleman. Indeed, if we were to accord any special characteristic to Sir William it would be Chesterfieldian. One would expect to find in the distinguished manner of the departed doctor, senator and knight, who was at the same time a philanthropic and estimable citizen, those qualities of mind and heart which make the true man and the courteous, affable, cultured gentleman. He was all these, and no man could be better. Full of years and honor he has gone, but has left behind him an example and a name which will long live green in the annals of Canadian life, and particularly in Canadian medicine.

An Academy of Medicine may be an accomplished fact ere the close of the academic year. Special committees have been carefully and earnestly working the past two or three months, representing the Ontario Medical Library, the Toronto Clinical Society, the Toronto Medical Society, and the Toronto Pathological Society. Each of these is to constitute a unit of the Academy of Medicine, Toronto. Membership will be primarily in the Academy and secondarily in a section, medicine, surgery, etc. As there appears to be little if any opposition to the scheme, and as all the societies are working for its early consummation, no doubt satisfactory arrangements will soon be announced.

The Toronto General Hospital has issued its annual report for the year ending the 30th of September, 1906. On the 1st of October, 1905, there were in residence 175 males, 122 females, and 8 children. During the year 2,121 men, 1,462 women were admitted to the wards, and there were born in the Burnside Lying-in Department 107 males and 90 females. On the 30th of September, 1906, there remained in the institution 163 males, 101 females and 15 children. The deaths were: 184 males, 84 females and 26 children.

The subject of house disinfection and reinfection, particularly in diphtheria, is a very important one, and is now exciting interest among sanitarians. Disinfection with formaldehyde gas accomplishes so far the best results, but it does not do all. In some parts of the United States a far better system prevails in addition to the formaldehyde gas, namely, the routine examination of swabs from all inmates of the house where there is a case, as well as from the nurse. This seems to be far better and more systematic. The drawbacks against such a system can readily be answered. Especially should such routine examination be made of the throats of all children and nurses in the house. It is only after all cultures are pronounced negative that the formaldehyde gas disinfection can be employed effectively. Some statistics may

here be given: In a series of 2,807 cases of diphtheria in Baltimore there occurred *during the same year* 65 reinfections, or 2.35 per cent., and this after the throats of all the household were declared free, and subsequent formaldehyde gas disinfection. Compare with this from another city where just the formaldehyde gas disinfection is practiced: In a series of 258 cases of diphtheria there was 1.55 per cent. reinfection in *two months.* For the year and for this number of cases the percentage would be 930. Baltimore has practiced this far better system since 1898. Look at the decrease in diphtheria in that city year by year: In 1898, 2,019 cases; 1899, 1,783; 1900, 1,858; 1901, 1,149; 1902, 941; 1903, 1,436; 1904, 1,241; 1905, 941. The effect is striking when it is known the population of that city increased from 541,000 in 1898 to over 600,000 in 1906. So far as it is known, no city in Canada carries out such a rigid system for combating diphtheria. Health officers should at least call for a swab of all nurses on leaving a case of diphtheria, and they should not be allowed to engage on another case until their throats were authoritatively stated clear.

In Ontario there are 61 hospitals, 37 refuges, 30 orphanages, 3 homes for incurables, 2 convalescent homes, 2 Magdalen asylums, and 25 county houses of refuge. The number of patients in the hospitals on Oct. 1st, 1905, were 2,549; the number admitted during the year 37,537; the number of births during the year, 1,764; the number of deaths, 2,429. The cost to run these hospitals was $1,228,289.00, towards which the Ontario Government gave $110,000. The average cost of each patient per day was $1.08. The movement for an additional amount from the Government it is to be hoped will be successful, as with its present income and the wealth of New Ontario largely under its control, there should be ample for the needs of all the hospitals in the province. In fact, it would be a good thing and a very beneficent piece of legislation if some portion of New Ontario were set apart specially for the hospital needs of the province.

Ontario is going to grapple with the tuberculosis problem with renewed vigor. Mr. Downey is promoting legislation looking towards the formation of county or district associations to help on the crusade. A deputation recently waited on the Government asking that consumption be made a notifiable disease. This should have been done long since, and pneumonia likewise, as it is now established beyond doubt that the disease in some cases is conveyable from person to person. La grippe is accountable for a great and widespread destruction of human life. Why not add it to the list as well? The field of the sanitary scientist is ever broadening. In a few years state medicine will have become the most important branch of the practice of medicine. Long ago Lauder Brunton predicted that the time would come when physicians would be more engaged in preventing disease than in treating people sick. That time is hastening on apace. In some respects health officers are lax in carrying out the laws of the land. Measles, whooping-cough, chicken-pox and mumps are equally classified with diphtheria, scarlet fever and smallpox, but scores and hundreds of these cases occur every year that are never reported. What the law requires in regard to all should not be applied to the most dangerous to life, whilst the others are allowed to go by the board.

The Federal Proprietary and Patent Medicine Act has been distributed to members of Parliament. This is decidedly important legislation, demanded in the best interests of the people. In plain words, it simply seeks to regulate the trade and commerce of these commondities. Sometimes they may be useful, sometimes dangerous and often times absolutely of no good whatever. Indeed, under a large section of the trade in these so-called remedies comes the latter class. It would be nothing more than foolish and nonsensical to say that all patent medicines and proprietary preparations in drugs were no good. Some of them are no doubt good prescriptions, accurately compounded. But we are thoroughly of the belief—every man to his calling in life—consequently, like all physicians, we consider we are the

best qualified and fitted to diagnose disease in all its forms and to prescribe best for its treatment. Therefore, always have doctors opposed the indiscriminate use of drugs by people who with swell-headed wiseness diagnose their own ailments and so prescribe for the symptoms thereof. For this reason, also, the good druggist is he who follows out faithfully the doctor's prescription, as she also is the good nurse who conscientiously and unassumedly carries out the doctor's orders. This says nothing about the harmful drugs incorporated in patents, for there can be no defence of such immoral pharmacy. This Act will properly regulate that.

In the domain of therapeutics there has been as good advances made during the past year as has been done in any other department of medicine. An immense amount of investigation has been done looking towards the production of immunity and the specific treatment of disease. Much progress was made in applying this new therapy, so much, indeed, that we may look forward with confidence to a more rational therapy in medicine than has ever prevailed in the past. In the expected developments of the near future we may expect that typhoid, dysentery, cholera and plague will be successfully treated by the means of vaccination. The opsonic index seems to stand out as the predominant advance in therapeutics in the past year. The method, whilst specially applicable to those diseases caused by bacteria, has been applied and the treatment accepted in some such as smallpox and hyrophobia, where the virus is still unknown.

News Items.

A NURSES' home has been opened in connection with the Winnipeg General Hospital.

DR. JAMES H. MUNRO, of Greenfield, has been appointed associate coroner of Stormont, Dundas and Glengarry.

DR. C. N. ANDERSON, of Leamington, has been nominated for the Legislature by the Conservatives of South Essex.

THE mortality figures for Winnipeg in 1906 show 16,138 deaths, or 16.138 deaths for every 1.000 of that city's population.

DR. HOWARD D. BARNES, Associate Professor of Physics at McGill, succeeds Prof. Rutherford in the chair of Applied Science.

DOCTORS who require nice sets of standard authors at close prices and easy terms of payment should consult advertising page xii.

DR. B. J. MCCONNELL, of Morden, Man., is a candidate for legislative honors in the interests of the Liberal Party of Manitoba.

DR. A. B. MCLEAN, who formerly taught school at Dunedin, has commenced the practice of medicine at Pe Ell, in the State of Washington.

DR. J. R. WOODGATES, a former resident of Granton and St. Marys, died on January 20th, at his late residence in Axminster, Devon, England.

A BILL to regulate the manufacture of patent and proprietary medicines has been presented in the name of the Hon. Mr. Templeman in the Dominion House of Commons.

Mr. Smith Henderson, a final year medical student at McGill University, and a son of Dr. Henderson, of Ottawa, recently died in Montreal of appendicitis, 22 years of age.

A nurse in the Winnipeg General Hospital was recently seriously jammed in the elevator in heroically attempting to save a child from a similar fate, if not immediate death.

Dr. J. A. Amyot, Ontario Bacteriologist, delivered a lecture recently before the Toronto Young Men's Municipal Club on Toronto's water supply, advocating a filtering basin on Scarboro Heights, six miles east of the city.

During the nine months that the Winnipeg Laboratory was open in 1905, 3,396 tests were made. During the same months in 1906 the tests numbered 5,057. Dr. J. H. Leeming is bacteriologist to the city of Winnipeg.

Dr. D. J. Murray, of New York, son of Mr. R. Murray, Stratford, has gone on a pleasure trip to the East, where he intends visiting Naples, Genoa, Rome, Palestine and the Holy Land, returning to England by way of Paris, France.

President Charles Elliot, of Harvard University, delivered an address at the annual dinner of the American University Association of Montreal on the evening of the 22nd of February, the subject being: "The University, Its Aims, Aspirations and Work."

In the case of Lafferty *vs.* Lincoln, in the Supreme Court, Mr. Crysler, K.C., made application to the full court for special leave to appeal from the Supreme Court of the North-West Territories in the matter of the conviction of a physician and surgeon for having practiced his profession within the Province of Alberta without having registered under a recent statute passed by the Legislature of that Province. In addition to questions raised upon the merits, the constitutionality of the statute is challenged. Mr. Haydon, for the opposite party, did not oppose the motion. In view of the importance of the ques-

tions at issue, the court exercised its discretion by granting the special leave to appeal applied for.

Dr. R. W. Bruce Smith, Inspector of Prisons and Public Charities, advocates the establishment of a home for weak-minded women in this Province. He says that imbecility and heredity are the most prolific causes for pauperism and crime, and that it would be good economy to provide a place of protection for such persons away from the paths of sin.

Last year 50,441 patients were treated at the Montreal General Hospital. Of these 3,459 were admitted to the wards, and 46,982 were treated in the outdoor department, an increase of 222 in the indoor, and 2,466 in the outdoor department. During the month of December, 279 patients were admitted to the wards of the hospital, and 253 were discharged. There were 27 deaths, 16 of which occurred within three days of admission. The average daily sick in the hospital was 202, and the highest number on any one day, 215. Outdoor consultations numbered 3,577. The ambulance made 171 runs in response to calls. The average number of visitors at the hospital on visiting days was 324.

Publishers' Department

I HAVE used Resinol Ointment as a dressing for slight wounds, minor surgical purposes and for piles. In every case I have found your Ointment to be all it is represented to be—a great curative. I have known instant relief result from its application for piles. I heartily recommend it to my associates as a useful article, and one that is handy to have in many emergencies.—E. STREET, Nurse, "The Sanatorium, Matlands, Australia.

SOME USEFUL SUGGESTIONS.—In urinary incontinence, especially in children, give atropine, gr. 1-500 t. i. d. and an extra granule at bed time. In urinary incontinence due to general weakness, especially of the sphincters, add strychnine nitrate, gr. 1-134 to each dose. In urinary incontinence due to irritation of bladder from foul urine add lithium benzoate, gr. 1 to each dose. In urinary incontinence from cystitis, add a granule each of aconitine (gr. 1-134) and cannabin to each dose. Atropine, gr. 1-500 to 1-250 every fifteen minutes is useful in hemorrhage from any part of body. Hydrastinine, gr. 1-12, should be added to atropine if the bleeding is from uterine membranes. This combination effective. Atropine, gr. 1-250, till dryness of mouth is noticed, is efficacious in ovarian neuralgia, dysmenorrhea, etc. Dioscorein, gr. 1-6, should be added to relieve the severer pains. In excessive sweating, especially at night, pulse slow and soft, skin cold and clammy, atropine, gr. 1-250, every half hour will soon change conditions. In acute coryza, beginning of congestion, give atropine, gr. 1-500 every half hour until dryness of the throat is noticed, then less often. Hamamelin, gr. 1-6, should be added to atropine if bleeding from veins is due to a general relaxation of their walls. I gave dioscorein, gr. 1-6, in hot water every ten minutes, in severe gall-stone colic, and sodium succinate ever since for last six

months, with but one slight return of pain. Podophyllin and saline to keep bowels in normal condition completed the treatment.—M. B. STINE, Crooks, S.D., in *The American Journal of Clinical Medicine,* Feb., 1907.

THINGS GOOD AND BAD.—Dr. Uriel S. Boone, formerly Professor of Pharmacology and Surgery, College of Physicians and Surgeons, St. Louis, says: "There is one thing bad about the grippe. Its victims instead of being rendered immune by the first attack, seem to become more liable to its recurrence. There is one disconcerting feature about it. Its symytoms resemble those of so many far more serious maladies. This country is full of people who are going about darkly ruminating, because of evidences of heart trouble, nervous prostration, dyspepsia, liver complaint and old age, 'together with a plentiful lack of wit and weak hams.' There is one thing good about the grippe. It yields rather readily to the 'antikamnia and quinine tablet' treatment. This remedy given in one or two tablet doses, every three hours, with plenty of rest in bed, and among pleasant and quiet surroundings, will work wonders. If suffering from nervous headache, nervous exhaustion, general nervousness, muscular aches, irritability or insomnia, administer one 'antikamnia and codeine tablet' three or four times a day at regular intervals. Nothing equals this remedy in relieving the organic pains of women, and this without unpleasant after-effect. In these particular cases, prescribe one tablet every hour until three are taken."

I HAVE been testing Resinol Ointment and Soap in connection with X-Ray treatment of extremely severe cases of skin diseases, and had wonderful results. I strongly recommend the use of these preparations during the interval between exposures to the X-Ray treatment.—WALTER A. RULON, G.M., Philadelphia, Pa.

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CLINICAL REPORTS OF THE NEW HYOSCINE, MORPHINE AND CACTIN ANESTHESIA.—I gave the hyoscine, morphine and cactin compound a trial to-day in a case of locomotor ataxia of three years' standing, in which three grains of morphine (hypodermically) had no effect. This patient had been using morphine for more than nine years; had not had any morphine for eighteen hours previous to the hypodermic injection of the hyoscine, morphine and cactin compound, and thirty minutes after injection there was complete surgical anesthesia.—F. V. DOTTERWEICH, Ashland, Ohio, in *The American Journal of Clinical Medicine,* Feb., 1907.

Since using the hyoscine-morphine and cactin tablets in a number of different cases I would not be without them. They are valuable in obstetrical as well as surgical work, and in many other cases where morphine or hyoscine is needed. The hyoscine prolongs the rest so well in pain cases that a second dose of morphine is not needed nearly as often.—J. W. ROBINSON, McCammon, Idaho, in *The American Journal of Clinical Medicine,* Feb., 1907.

I have had good results with the alkaloids. Yesterday I had an opportunity to test your method of hypodermic anesthesia. A woman had the end of her finger torn from the second joint, badly lacerating the muscle above, which required my taking off a piece of the bone. I injected one tablet and in due time, with but four or five drops of chloroform, she was asleep, and the necessary operation was performed without the slightest pain. M. H. WESTBROOK, Olmsted Falls, Ohio, in *The American Journal of Clinical Medicine,* Feb., 1907.

I AM pleased to inform you that I used Resinol Ointment and Soap with most gratifying results in a severe case of eczema of the face, the trouble being totally cured in a remarkably short time. I am glad to recommend these preparations.—DR. ANGEL E. RIVERA, Naguabo, Porto Rico.

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Original Articles.

LEUCOCYTES AND LEUCOCYTOSIS.

By D. A. L. Graham, M.B.

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In discussing the subject of leucocytes and leucocytosis in a paper of this kind, it is only possible to give a bare *resumé* of the question, and to touch on the more important points. It is my endeavor to bring out the clinical significance of leucocytosis, and also to show the value of considering the factors which affect the proper interpretation of a white blood count, so that it may be of definite value in the diagnosis of various pathological conditions. The first essential in the study is an accurate count from the laboratory. The clinician should not have to concern himself with a possible error in this respect. I shall not discuss the various questions of origin or theories of leucocytosis, as it would be impossible to do justice to such a wide and important subject at this time.

Classification.—The leucocytes, when classified according to origin, make up the following varieties:

1. Lymphocytes 22 to 24 per cent.
   (*a*) Small.
   (*b*) Large.
2. Large mononuclear leucocyte 1 to 2 per cent.
3. Transitional 2 to 4 per cent.
4. Polynuclear leucocyte 70 to 72 per cent.
5. Eosinophile 2 to 4 per cent.
6. Mast cell .5 to 2 per cent.

Histology.—The lymphocytes, small and large, belong to the one class, the difference being mainly a matter of size. In differential counting it is customary to regard every lymphocyte smaller than a red blood corpuscle, that is, from 4 to 7 m. in diameter, as small, and those above that size as large. Many have endeavored to classify these according to the staining characteristics of their protoplasm and nucleus, but we so often find small lymphocytes taking on the characteristic staining of the large mononuclear, or *vice versa,* that the classification according to size seems to be the better, as the lymphocytes so far have no individual significance, but must be studied as a class. The large mononuclear is a cell larger than the large lymphocyte, that is, 12 to 20 m. in diameter, with a large, round nucleus, generally excentrically placed, and surrounded by a protoplasm, usually containing a few basophile granulations.

The next variety is the polynuclear, with its horseshoe-shaped neucleus and a cell body filled with fine neutrophile granules, which granules form an integral part of the protoplasm (Arnold).

The eosinophile possesses a like morphology to the polynuclear leucocyte, but its protoplasm contains a coarse granule, which is acid in reaction. The mast cells have a round or polynuclear faintly-staining nucleus, which is surrounded by coarse purple granules. In speaking of the histology of the white blood corpuscle, I wish to speak of two other cells, the myelocyte and the eosinophile myelocyte. These cells are found in severe or prolonged leucocytosis, and represent the bone marrow precursors of the polynuclear and eosinophile respectively.

Origin.—Just a word as to origin. The white blood corpuscles are derived from the lymphatic glands, bone marrow, spleen, and possibly from certain tissue centres. The original view that all white corpuscles came from one cell, namely, the large lymphocyte, and that each particular cell represented different stages of development, has been largely replaced by the view of Erlich that the lymphocytes are derivatives of the lymphatic glands, while the remaining forms, the mononuclear, transitional, polynuclear, eosinophile and mast cell come from the bone marrow; the polynuclear and eosinophile from its precursors in the marrow, the myelocyte and eosinophile myelocyte.

Recent researches by Kanthack and Hardy have attempted to show that the large mononuclear or hyaline cells, as he called them, together with the eosinophile, were not of hemal origin, but had their origin in local tissue cells. This point is worthy of note when one considers the large number of eosinophiles

found in definite focal areas, in certain pathological conditions, without any definite relative increase in the circulating blood.

Degeneration.—A point often overlooked in the study of the white blood corpuscles in pathological leucocytosis is degeneration. This is always well marked in severe, often prolonged toxemia, with probable failing resistance. In these cases we often get large percentages of both granular and non-granular forms, in which either a lack of granules or a disappearance or fusion of these, and a breaking down of the normal histological characteristics of the cells exists. This point should more often be taken into account, as it is certainly an evidence of active leucocyte destruction.

For clinical purposes we may class all forms of leucocytosis into two groups, Physiological and Pathological.

Physiological Leucocytosis.—We may divide physiological leucocytosis into:

1. Digestive leucocytosis.
2. Leucocytosis of pregnancy.
3. Leucocytosis of newborn.
4. Leucocytosis due to thermal and mechanical influences.

Pathological Leucocytosis.—

1. Part hemorrhage leucocytosis.
2. Leucocytosis in cachectic and malignant conditions.
3. Drug leucocytosis.
4. Toxic leucocytosis.
5. Inflammatory and infection leucocytosis.
6. Ante-mortem leucocytosis.

Physiological Leucocytosis.—Digestive leucocytosis.—In a normal individual, after a full meal, the increase of white cells is about 33 per cent. (Reider). This increase begins one hour after the ingestion of food, and the maximum is obtained in from three to four hours, followed by a gradual decline. This condition varies somewhat in different normal individuals, and in different diet. Proteid diet produces a more decided leucocytosis than a vegetable or fat diet. As to the character of the leucocytosis, we get a moderate lymphocytosis followed by a mixed and finally a granular or polynuclear leucocytosis. Marked mention is generally made of the lymphocytosis of digestion. To my mind, this is not justified. In working on the guinea-pigs in conjunction with Dr. Nasmith, we were able to show from numerous counts, extended over a period of time, that the greatest leucocytosis was the polynuclear; that although we had an absolute lymphocytosis throughout, the relative lymphocytosis was not really marked, and is not the essential factor.

This can probably be best shown by the total and differential counts, taken before and at intervals after feeding. The following is an average count of five pigs:

		Eosin.	Poly.	Trans. and Mono.	Vac.	L. and S. Lymphocytis.	Mast Cells.
1. Before	6100	6.55	23.28	2.73	3.85	63.02	.18
2. One hour	12780	8.70	39 65	2.25	3.15	45.45	.60
3 Two ours	10520	5.25	47.25	1.35	2.90	42.80	.45
6. Six hours	7980	1.99	38.20	1.05	3.15	57.5	.25

These counts show definitely that we have an absolute lymphocytosis throughout, and a marked absolute and relative polynuclear leucocytosis established for two hours after digestion, and gradually declining again to normal.

Digestive Leucocytosis.—The failure of digestive leucocytosis may be noted, and is of more or less value as a differential diagnostic point in certain pathological conditions. Digestive leucocytosis is lessened and prolonged or may be even absent in conditions such as torpidity of the stomach and bowels. In chronic anemic cases it is diminished or absent (Reider and Muller).

In patients confined to bed for some time, the results are rather irregular; at times an increase above normal is obtained, again it may be absent. In carcinoma of the stomach no definite digestive leucocytosis is obtained in 90 per cent. of cases; of the remaining 10 per cent. about 8 per cent. show a slight increase, and the rest give a marked increase. In very advanced cases it is probably invariably absent (Hartung). However, in such conditions as simple stenosis, ulcer of the stomach, chronic gastric catarrh (Schneyer, Capps and Cabot), as well as carcinoma of other viscera (Hartung), a well marked digestive leucocytosis is the rule.

Leucocytosis of Pregnancy.—In the first three months of pregnancy there is no leucocytosis; in the later months we get an increase of varying degrees, especially constant in young primiparæ. Reider made the following interesting observation that digestive leucocytosis is absent in nearly all cases of pregnancy in the ninth month. After parturition there is a gradual return to normal.

Leucocytosis of Newborn.—A well marked and absolute and relative lymphocytosis is to be found in the newborn: the number

varies from 10,000 to 25,000, and is continuous for some time after birth.

Leucocytosis due to thermal and mechanical means.—After hot and cold baths, massage, muscular exercise not resulting in fatigue, a transient increase in the number of white blood cells is produced. I merely mention this as a factor to be guarded against in determining the significance of a leucocyte count.

Pathological Leucocytosis (Post-hemorrhagic leucocytosis).—Immediately after an acute hemorrhage a slight diminution in number is found to be followed in a few minutes by a well-marked polynuclear leucocytosis; this is to be found in the pulmonary hemorrhage of phthisis, hemorrhage from cancer of the uterus, ulcer of stomach, hemorrhage from the bowels. In a few isolated cases no leucocytosis is obtained, but in such cases a differential count shows a lymphocytosis to be always present. In general the leucocytosis following hemorrhage is in proportion to the extent and rapidity of the loss of blood (Ewing).

Cachectic Leucocytosis.—In cachectic conditions we often get a more or less marked increase, but in the majority of these cases this can usually be traced to some of the other casual factors of leucocytosis, namely inflammation and hemorrhage.

Drug Leucocytosis.—The administrations of drugs produces yet another point to be noted in the interpretation of leucocytosis; such drugs as quinine and atropine produce a slight diminution in number, whereas antipyrin, antifebrin, pilocarpine and probably morphia, produce a considerable increase. Again, irritants, such as free acids and alkalies, produce moderate leucocytosis, whereas vesicants, as copper sulphate, silver nitrate and mercurials, produce a fairly marked increase. Some have attempted to further increase toxic and infectious leucocytosis by the injections of drugs for increasing the number of the polynuclear white blood cells, expecting thereby to increase the resistance of the patient, but their efforts along such lines have not been very satisfactory.

Toxic Leucocytosis.—Examples of this class of leucocytosis are poisoning by ptomaines and coal gases, together with chloroform and ether narcosis, convulsions, acute delirium, and probably uremia may be put in this class. Metabolic products are, doubtless, the active toxic agency in this class of leucocytosis. In acute gas poisoning we get a marked leucocytosis of the polynuclear type. This increase is not due to peripheral stasis, as we were able to show in the study of this condition in the guinea-pig. In chronic gas poisoning a fairly well-marked increase

is found, accompanied by eosinophilia and a moderate polynuclear leucocytosis. In narcosis produced by ether and chloroform a well-marked increase lasting for a number of hours is found, especially in the former. In acute delirium and convulsions the increase varies directly with the severity of the attack.

Inflammatory and Infectious Leucocytosis.—This is, perhaps, the most important type, and to which may be attached the greatest clinical significance; however, before an accurate clinical picture can be obtained, one must take into account the many aforementioned factors which may affect the true clinical picture represented by our white blood counts. This can best be obtained by obviating those factors where possible by accurate counts taken at proper intervals, as before a meal to avoid digestive leucocytosis, before baths, sponges, or massage, so that your result will not be affected by the thermal and mechanical influences before mentioned.

We always get a leucocytosis varying in degrees with the resistance of the patient, and the intensity of infection in pathological conditions, produced by micro-organisms; so we may say that this class of leucocytosis, which always accompanies infectious and inflammatory conditions, must be regarded as indicative of an attempt on the part of the human organism to resist the invading principle, whatever its nature may be, through the protective actions of the leucocyte. Our index of the intensity of the infection, and the resistance of the patient, must be, in a general way, the degree of leucocytosis, together with the presence or absence of eosinophiles. I shall refer to the significance of the latter point in speaking of eosinophilia.

Eosinophilia.—As the name suggests, eosinophilia is a name applied to an increase of these cells in the blood above the normal 2 to 4 per cent. usually present. It is present, and of considerable diagnostic importance in such skin diseases as pemphigus, eczema, pellagra, lupus, psoriasis, wide-spread urticaria; in bronchial asthma, infection with various intestinal parasites, and in new growths, especially those involving the bone marrow. Again, Neusser has attempted to classify the various neuroses into those with and those without eosinophilia. Eosinophiles are nearly always increased above normal in the later stages of acute infections, and we have come to recognize their presence throughout an acute affection, or their early reappearance, as of extreme value in determining a favorable prognosis. I have been able to demonstrate their reappearance previous to a true crisis in pneumonia, whereas in a previous pseudo crisis

they were not found. Some authors in speaking of eosinophilia, have made the statement that in infections as pneumonia where eosinophiles persist or reappear, they never prove fatal. My experience has been far too limited to express any definite opinion on this point. I, however, believe this to be true in most cases. Eosinophilia although referred to definite conditions is symptomatic of a slow or mild intoxication, or in the case of reappearance after an acute attack, indicates that the patient has overcome the infection. I do not think that one should regard acute infection as positively chemiotactic for the finely granular leucocyte or polynuclear and negatively chemiotactic to the eosinophile. For I believe that we would find them in the early stages of this condition, and, as I said before, we certainly find them towards the end of the conditions, where resistance is offered, as proof of this belief that eosinophilia is symptomatic of slow intoxications. I would like to mention a few observations made by us in the study of carbon monoxide poisoning. The following are representative counts which illustrate my point:

		Eosin.	Poly.	Trans. and Mon.	Vac.	L. and S. Lymph.	Mast.
Normal	6.110	6.55	23.28	2.73	3.85	63.02	.18
1. Acute poisoning, 1 hour	20.700	7.75	43.25	1.75	2.00	43.5	1.75
2. 8 hours	19.700	.0	87.75	2.00	1.25	.9	.0
3. 30 hours	7.400	2.25	30.50	2.25	5.5	59.5	.0
Chronic poisoning	10.500	15.25	49.50	3.75	1.75	27.5	1.0

In the above condition we have the same active toxic agency throughout, that is, the products involved from carbon monoxide poisoning, which are doubtless metabolic.

In acute poisoning we get, early, a slight rise in the percentage of eosinophiles, followed by an absolute absence, at the maximum of the intoxication, then gradually reappearing again, as they always do in resisted infections.

We also have a marked polynuclear leucocytosis. In the chronic form we have an established eosinophilia with a moderate polynuclear leucocytosis.

Lymphocytosis.—By lymphocytosis we refer to an increase in the large and small lymphocytes in the blood. There are very few conditions in the adult in which we get a marked relative and absolute lymphocytosis. There is usually a slight lymphocytosis towards the end in most infectious diseases. In children,

where these cells form a rather larger percentage, especially in the very young, we often get a marked lymphocytosis in such conditions as rachitis, or associated with a polynuclear leucocytosis in infectious diseases.

Resistance.—Operation not often reveals a localized abscess with local peritonitis, where the clinical symptoms are sometimes masked, and we get a low leucocyte count. This condition is associated with a failing resistance, and in these cases a differential count is often valuable; at least, it determines whether we have a true leucopenia or not.

A normal leucocyte count associated with a relative polynuclear leucocytosis indicates a severe infection with a failing resistance. In failing resistance the blood shows the following: A comparatively low leucocyte count, absence of eosinophilia, a relative polynuclear leucocytosis, probably myelocytes, the bone marrow precursions of the polynuclear leucocyte, and degeneration of the white blood cells. This condition was clearly shown in a case recently in the Toronto General Hospital. A white and a differential count was taken on a patient with acute lobar pneumonia. Shortly before death the whole count was 15,000. The differential count showed an absence of eosinophilia, a relative polynuclear leucocytosis, presence of myelocytes, and marked degeneration, which was indicated by the fusion of the granules in the polynuclear, with fragmentation of the non-granular leucocytes. All cases of failing resistance do not show all the above factors, but one or more are usually present, making it possible for a diagnosis.

I have not attempted in this paper to describe the character of the leucocytosis in the different diseases, but have tried to bring out the factors which affect our count, and to point out the relationship of the eosinophile with the degree of infection and its significance in prognosis. However, I would like to mention a few observations made while in the clinical laboratory of the hospital, in studying the blood in typhoid. In typhoid we get a true leucopenia. Of some twenty cases where a white blood count was made and a positive widal reaction obtained, only one case showed a count over 8,000; 20 per cent. were below 4,000; 33 per cent. below 5,000; 60 per cent. below 6,000; 80 per cent. below 7,000; and 95 per cent below 8,000. The one patient giving a count above 8,000 was one sent into the hospital as a case of puerperal sepsis. This low count is obtained quite early in the disease before the widal reaction in the greater majority of cases. This low leucocyte count, combined with a history of continued high temperature, with a pulse below

90 or 100, is a trio in the diagnosis of typhoid fever, which the hospital records show to be fairly constant.

The writer has made free reference to the following books and papers:

Ewing, Clinical Pathology of the Blood.
Ehrlich and Lazarus, Histology of the Blood.
Da Costa, Clinical Hematology.
Sahli, Diagnostic Methods.
Nasmith and Graham, Journal Physiology, Vol. xxxv., 1906.
Kanthack and Hardy, Journal Physiology, Vol. xvii.

PRURITUS ANI.

By W. C. Abbott, M.D., Chicago, Ill.

Some years ago I had under my care a desperate case of pruritus ani. The patient was a physician, who had by reason of intestinal disease been driven to the habitual use of whiskey and morphine. A surgeon had opened the abdomen and found the entire colon contracted, the central cavity being scarcely half an inch in diameter, while into this opened a double row of cellules, in each of which was a hard fecal marble, larger in diameter than the opening into the bowel. By no method could the bowel be kept free from these masses, which were removed at the operation mechanically, but quickly reproduced. The most persistent flushing through a fistula opening into the cecum failed to prevent the re-formation of the scybala.

The patient suffered most frantically from anal pruritus, for which we searched our books and employed without success every remedy that was recommended. Even the application of nitric acid failed. The man went out of our hands and a year later committed suicide in a western city. The cause was never declared, and he had in his habits and ailments other sufficient reasons for the awful act. But once a patient came into my office and, laying a revolver on my desk, remarked that if I did not relieve his anal pruritus he would blow his brains out then and there. In that case immediate temporary relief followed an application of compound tincture of benzoin. In later cases similar relief has followed the application of carbenzol, which has the further advantage of not burning like the benzoin, and permitting daily, or rather nightly, use.

But a second case coming to me was that of a man who had

also an enormous fecal impaction, and its discovery was preceded by several months' suffering from pruritus of the most obstinate variety. The itching was felt up in the rectum beyond the internal sphincter.

It occurred to me that the cause of the pruritus was not any local condition of the anal tissues, nor that famous refuge of ignorance, a "neurosis," but was perhaps an irritating discharge from the retained and necessarily decomposing fecal mass. Instead of applying local remedies I administered a few granules of laxatives each evening, and a moderate dose of effervescent magnesium sulphate in the morning. The pruritus at once subsided. Since then the patient has been instructed to look upon the itching as an evidence of retention of feces, insufficiency of the daily evacuations.

Like so many cases in which pain is present, the suffering of pruritus is one of nature's methods of calling attention to a difficulty that needs attention. Instead of seeking to smother the evidences of something wrong, we may with advantage investigate the causes of the phenomenon.

Whether many cases of anal pruritus can thus be explained I do not know. Possibly many; it is a matter for observation by the profession at large. But if these cases are confirmed by others we may find in pruritus a valuable aid in diagnosing fecal retention before more serious symptoms arise.

MEDICAL THOUGHTS, FACTS, FADS AND FALLACIES.

By James S. Sprague, M.D., Stirling, Ont.

The most irreconcilable enemies that one, that is, you and I have, are too frequently those of our own household, and as proof of this statement I have before me two medical journals and one almanac. Both journals have their homes in the United States; neither one is purely ethical, for the word ethical is found to be applicable as an adjective to two, only two United States medical journals, one of which is published in California and the other in Pennsylvania. In neither of these journals can you find any notice or endorsement or reference to a quack or proprietary compound. Think of it, brother,—only two ethical, of the three hundred medical journals in the United

States! Yet a popular United States journal, that in Canada has a large circulation, is evidently (?) trying zealously for classification and for being named among or with the minority; but very recently it named the letters of the alphabet, and to each letter there were affixed in regular order, and respectively, the names of many diseases, from A (abscess, asthma, etc.) to Z (Zoster, Herpes), and patent medicines duly advertised in its advertising sheets were named respectively as the cures for the said many diseases, duly recorded.

The two medical journals, as first named, not long since had the photogravures, respectively, of a prominent doctor of T—— (with whom in 1868 I lived), and the other journal had a reproduction of the engravings of five St. Louis M.D.'s who, contrary to long-established rulings in medicine, had allowed, it would appear, their many specialties, gifts and qualifications and family histories to appear in connection with their photographs reproduced in the most prominent St. Louis newspaper. To doctors, everywhere located, such newspaper advertising is unprofessional, and certainly not ethical, and the journal referred to, in its last issue, contains many criticisms and condemnations of the publication of professional qualifications in the lay press.

The editor of the other journal, in which are to be found the T—— M.D.'s "photo," degrees, qualifications, etc., runs as good an almanac, medical publication or monthly, so representative of its class that it can be said to have no equal. Its editor is stated to have said that in no sense is he willing to be considered a benefactor of or to our profession. Such was needless for statement, for this journal, found frequently on news-stands, and often found in non-professional hands, advertises and recommends most of its own goods—to the innocents, and those deluded mortals *actually pay* for the almanac. For them is the pity and censure of those who want to maintain personal and professional respectability, and as regards its producing my photo, my preference would be for the *P—— G——*, for the last-named tells its position, and the so-called medical journal, rather almanac, is playing good Lord—good devil with the elect, and the virtuous saints and sinners, even to the disgrace of every honorable and every ethical consideration in medicine.

This T—— M.D. has, in my opinion, disgraced himself, and any brother who in a weak moment so forgets himself as to copy his example is unworthy of the friendship of honest M.D.'s.

As regards the almanac, it is of the yellow cover, and is hon-

est in having *Almanac* on its cover; it is true to its name, and in it are the names of three prominent T—— doctors, who praise one of the eight preparations for whose sales the almanac was issued, and is left at every door—even at the door of the doctor, who, with much humiliation, yes, agony and even disgrace, will thank God that he is not as others; but as for himself he will not dishonor himself,—and certainly not his profession,—for there is in him a firm belief that if he does not disgrace medicine, medicine will never disgrace him. Some poet, whose name is unknown, has said:

"Fools' names as well as faces are often seen in dirty places."

Brothers, we have plenty of opponents, plenty, too, of men whose names are recorded as fellow Licentiates, who for a mess of pottage have sold, and will sell, their birthright in medicine, and so indifferent are they that they do not see the work—apparent work—and encouragement of those whose efforts are to destroy our standing and usefulness, in order that even greater freedom for proprietary medicine publications be introduced and encouraged. The following is the excerpt:

"That the Ontario Medical Council and other similar organizations are bodies of irresponsible men, was the opinion expressed by members of the Canadian Press Association at their meeting in Toronto last week. A resolution was carried authorizing the Executive to protest to the Provincial authorities against the Medical Council and all other like organizations which seek to become close corporations. The subject was discussed from all sides."

Fortunately, our Registrar, the Hon. Dr. Pyne, assisted by our President, Dr. Moorhouse, and Vice-President, Dr. Spankie, will act, no doubt, as defenders of our rights and honorable position, and in so doing they will have the support of our most honorable Medical Council, and others, as Licentiates—honest men, who not only medicine but themselves have honored, but now, and will most gloriously honor. No one man can well and faithfully serve two masters, and among us too often is it apparent that such work is being tried, and as a rule Medicine suffers, and are not my few introductory instances or illustrations sufficient proofs of such delusive attempts? If not, brother, let us read your objections, to be published by this journal, and as a consolation:

"O wad some power the giftie gie us
Tae see oursels as ithers see us;
But better still, that ither swells
Wad see us as we see oursels."

As proof of statements made I enclose a leaf or page from the *Almanac,* and have marked it Exhibit A. As to the emulsion recommended, it can be truthfully stated that any duly qualified druggist can make a preparation equally as good, if not better, and by so doing he would preserve the honorable relationship once enjoyed by druggist and doctor, now so ruthlessly too often severed by the patent medicine company, and making an honorable pharmacist an ordinary salesman, who sorely laments the ignorance of doctors in pharmacy and even in therapeutics. I also enclose extract from the medical journal referred to above to prove that medical ethics in Missouri has had defamers. Yet we must consider that Osteopathy had its orgin in the same State, and Iowa is the home of Chiropractics, and the "hoodoo doctor" is at home down South.

"Hinc lacrymæ rerum, et mentem mortalia tangunt."—*Virgil.*

Too many in medicine there are who are termed "easy marks"—and too many who would recommend, even to-day, "spermaceti as the sovereignest balm for an inward bruise," or G—— K—— for achylia gastrica or angina pectoris; and, too, there are to be found those

> "that would creep and be civil,
> And hold the stirrup for the devil;
> If on a journey to his mind,
> Would help him mount, and ride behind."

And even praise, and even give, a quack dope.

Yet it is well not to worry. Stagnant pools, however offensive, are said to purify themselves in time.

REFLECTIONS.

By J. S. Sprague, M.D., Stirling, Ont.

It is well for every one to avoid worry; he will live longer, for, "There are so many gods, so many creeds, so many ways that wind and wind," and although we have control over many diseases, many are placed under expectant treatment, and through nature and the good-will of Divine Providence many so-called visitations of the said Providence will bring back to health nine-tenths of those who have typhoid fever, assisted or not assisted by other than most ordinary care, and with or without antiseptic observances—fresh air and cleanliness, of course, to be well supplied. Doctors, since the introduction and univer-

sal use of the thermometer apparently consider it unnecessary to think, as did the old-time doctor, in order to properly study symptoms. Therefore it is fashionable not to think; yet if you must think, certainly it really is unwise to tell one what you think, for if your hearer thinks or does not think as you do, certainly you are losing much time and breath, and his views will be such as he always held, and your views will be so imperfectly interpreted that you never will be thanked or considered any wiser. Even if you are, or considered to be, "A gigantic genius, fit to grapple with whole libraries," it is always best to listen unless you are a lecturer.

Cato, who lived 95--46 B.C., tells us "I think the first virtue is to restrain the tongue: he approaches nearest to the gods who knows how to be silent, even though he is in the right."

In fact, it is well not to have any decided views. They may change to-morrow, and as a rule they occasion not only distress to you, and too frequently to your friends; many who have had many or few fixed ideas have too often been cruci-fixed. In fact, it is far better to take everything and anything as it comes than to act, or to appear to act, the reformer; such will save a lot of worry for yourself and friends. It also is not a bad idea to be just as you are, for the other fellow is not giving such work any study, and certainly he has as many followers and is considered equally as wise as you, even wiser. Do not attempt to have any personage as your ideal or model; be different in many ways, and as little as possible in any one way; it will tire you. It is contrary to nearly all teachings to do wrong in preference to doing right, yet the fellow who is doing such work is the one who sits among the elders on the front seat —near the horns of the altar; and while comparing notes, quietly recall the following, "and thank God you are not as other men":

> "Full many rogues have honest faces,
> And lightly trip their Sunday paces,
> But yet these pious broadcloth types
> Full oft should wear a garb of stripes;
> And, heavy fettered, trip as well
> The lock-step to a prison cell."

Brother, "Gentler pirates never scuttled ships."

Very many have tried to make their mark, and the roadside to the Temple of Fame is well lined with their graves; and if you are lucky in getting a mark it will be known to but very few, and in a very short time the mark will not show,—certainly you will expend a lot of useless labor. It will be as well to hug old habits and resolutions, it is economical; besides it is worrying

to halter-break new ideas; let some other fellow adopt changes and you will sleep better.

If it is necessary to have a consultant, just watch his every movement, his every word, in fact, keep your eyes and ears open, and regard him with the same caution as you would a recognized thief whom by accident you allowed to see your open safe and its combinations.

It is advisable to know as little as possible, and if so unfortunate as to have read very much you will in some unguarded moment say too much and you will be regarded as a bookworm and the possessor of no original ideas; for people want originality. What say you to the adoption of these rules, even now? It is of no use to bother, anyway, and, as stated, no use to study, for if you study you will have spells when you think you must "let your light be seen," and nine times out of ten what you gave for publication will be the result of very mature study and consideration, and the chances are many that if the truth of its reception could be received it would be found that it would appear as a tale that has been told to many; to others it would appear as not worth considering; to few it would be a treasure, and to the many indifferents in medicine a mine from which many proofs, even denials, endorsements and discouragements can be selected and disarranged to serve non-ethical interests. Thus, if we must obey the silent monitor, to write, let him "write down the vision and make it plain upon tables, that every man may read it fluently," and if a patent medicine is to be lauded, it will be well, certainly, that you name something to that effect in the title of your article. It does make every honest man among us kick his shins and encourages all the furor of our animal nature to do the same more completely to the sneak "ad." writer, or the paid so-called professor, who writes that slop stuff recommending so-and-so (Brown), so-and-so (Jones), etc., and other delusive, purely quack compounds did so-and-so. Our journals medical are filled with such trash. Would our church walls or halls or cloak rooms allow auction sale notices or other similar notices to remain? Would our hymn-books look well with rag-time music and songs. We want many who are capable to tell us what constitutes medical journalism—and by such I mean pure medical journalism—and in previous articles in this JOURNAL I have introduced similar views, and it is pleasing to notice in several of our journals similar interests are advanced by many who, like Dr. John Hunter, of Toronto, are bold enough to come out from the "don't worry" class and tell us our weaknesses and the strength of our enemies.

CARCINOMA OF THE STOMACH IN A PATIENT AGED TWENTY-EIGHT.

By George S. Strathy, M.D., C.M.,
House Physician, Toronto General Hospital.

Case I. Mrs. E. L. was admitted to Toronto General Hospital, February 20th, under the care of Dr. Allen Baines, complaining of vomiting and abdominal pain after eating.

Her father died, aged 75, of "tumor of the bowels." Mother died, aged 54, of cancer of the stomach. A half-sister of the mother has been operated upon for cancer of the breast. There are two brothers and one sister, all of whom are alive and well.

On January 2, 1907, was admitted to hospital suffering from indigestion and a slight fever of two weeks' duration. Her complaint was thought to be gastritis. No tumor was found, but there was a point of tenderness in the region of the stomach at the left costal border. Under light diet she improved, and on January 17th left the hospital, continuing in fairly good health till February 9th, when marked symptoms of indigestion reappeared. She had difficulty in swallowing and occasionally vomited. She never at any time vomited blood. Appetite was good, but the ingestion of food was always followed by pain in the region of the stomach. There was some belching of gas, and she had lost several pounds in weight. This was her condition on February 20th, the date of readmission.

Examination.—General appearance healthy, some loss of subcutaneous fat, no cachexia, tongue slightly coated, breath has ethereal odor (acetone), and the bowels are slightly constipated. In the epigastrium adjacent to the left costal border a tumor can be seen and palpated; it is tender and moves slightly, if any, with respiration. The mass feels hard, and on its anterior surface a small nodule can be made out. Percussion reveals dulness as high as the seventh rib in the left mammary line and down to within an inch and a half of the level of the umbilicus. A small nodule, seemingly in the omentum, was felt at the level of the left anterior superior spine and two inches internal to it.

Analysis of Gastric Contents after a Test Meal.—Total acidity, 7. Free HCl, 0. Combined HCl, 5. Lactic acid, a trace. Microscopically, a few Oppler Boas bacilli and many bacteria; no sarcinæ ventriculi; yeast fungi and starch granules.

Analysis of Urine.—Sp. Gr., 1,024. Reaction, acid. Albu-

men, none. Sugar, none. Acetone, present. Diacetic acid, absent.

Examination of Blood.—Whites, 6,000. Reds, 4,460,000. Hemaglobin, 80 per cent.

Diagnosis.—Carcinoma of the stomach.

March 5th. Exploratory laparotomy performed by Dr. Geo. Peters. The tissues of the abdominal wall were markedly hyperemic, and on opening the abdomen the stomach was found adherent to the abdominal wall and surrounding viscera. It was not considered advisable to do a gastrostomy, so the wound was closed without anything further being done.

March 9th. Vomits her fluid diet frequently. Nutrient enemata cause a good deal of colicky pain. Pain more constant, requiring morphia. Loss in weight more marked.

March 25th. Has been somewhat constipated. Pain almost constant. Vomits everything taken by mouth. Distension of lower part of abdomen. Tumor less prominent. Cachexia and loss of flesh marked. Fecal vomiting began to-day.

March 28th. Died at 3 a.m.

Autopsy Report.—Markedly emaciated; very small amount of subcutaneous fat. Abdomen distended with clear, transparent amber fluid. Adhesions between anterior abdominal wall above umbilicus and the loops of bowel and omentum. Peritoneum generally markedly thickened; over loops of intestine are definite small plaque-like areas of thickening. Intestinal loops are all adherent and lie in the upper part of the abdominal cavity, leaving large space between lowest coils of intestine and the bladder. Pelvic contents are separated from general abdominal cavity by a flat diaphragmatic thickening. Between loops of intestine are old, rather dense adhesions, fibrous in character.

Stomach.—Cardiac orifice somewhat stenosed. Wall is thickened with a nodular surface, showing a posterior wall area 6 cm. in diameter, flattened and pigmented with scarred margins, whole surface fibrous; evidently an healed gastric ulcer. The gastric wall shows a fairly even thickening; it is adherent to tissues behind. Pylorus stenosed. Only part of stomach free from adhesions is the anterior and upper portion around the cardiac orifice.

Large Intestine.—Ascending colon markedly dilated and filled with semi-solid fecal masses. Transverse colon dilated to a point just opposite middle line of greater curvature, where it is definitely stenosed by invasion of outer coat from splenic flexure to sigmoid wall of colon. Mucosa thin and somewhat congested.

Duodenum.—Dilated; mucosa thin and deeply bile stained. Two cm. beyond pyloric origin the mucosa is infiltrated with new growth.

Definite areas of fibrous tissue are present in the mesentery. No enlargement of mesenteric glands nor glands at hilum of liver. Liver and kidneys show fatty infiltration. Pancreas cannot be dissected out on account of cancerous tissue mass lying between it and sear on posterior wall of stomach, but it seems to be somewhat atrophied. Both ovaries and tubes are involved in the fibrous tissue adhesions. Tumor felt near left anterior superior spine was a small cyst, probably parovarian in character. No metastases found in any organs.

Microscopical Diagnosis.—Scirrhus carcinoma.

COMBINED SCLEROSIS OF THE TYPE OF FRIEDRICH'S ATAXIA

By George S. Strathy, M.D., C.M.,
House Physician, Toronto General Hospital.

Case II. E. G., age 25, married, referred by Dr. Donald Mackenzie, of Haliburton. Admitted under the care of Dr. Graham Chambers. Complaint, paralysis.

Family History.—Surname of both father and mother was Watt, although there is no consanguinity as far as known. Comes of a very healthy family; father, mother, four brothers and two sisters all alive and healthy. No neuropathic predisposition can be made out. Husband is alive and healthy.

Personal History.—Born in Renfrew County 24 years ago; has lived all her life in the country; has worked hard, but life has been healthy. She was married six years ago and has only been pregnant once. Mumps and pertussis were only illnesses previous to present attack.

Present Illness.—About four years ago, two weeks after her confinement, she contracted measles, and was quite ill for three weeks. When she got up she noticed weakness in her legs, and difficulty in walking, particularly going up and down stairs. Shortly after she found difficulty in standing while washing her face, being compelled to lean against the wall to prevent falling. The difficulty in walking gradually increased, and about a year ago she noticed that her arms were affected. Patient has never

had any disturbance of sensation, nor any trouble with bladder or rectum.

Present Condition.—Patient is a healthy-looking woman; apparent age, twenty-five years; color is good; nutrition fair; no apparent wasting; intelligence, average; no sign of emotionality; memory unaffected. She is unable to stand without assistance. The gait is ataxic, patient can only walk when assisted. In walking the movements of the legs are irregular, the feet being shuffled forward and brought to the floor with a slap, sometimes crossed, and at other times spread widely apart. Speech is somewhat slow and monotonous. This may be partly due to loss of teeth. Tongue is tremulous.

Muscular System.—Muscular strength of legs is slightly impaired; arms almost normal. Slight hypotonus of arm and thigh muscles. Muscles of calf are somewhat rigid, and dorsal flexion of ankle is slightly limited. The foot is hollow (pes cavus); dorsal flexion of big toe is continuously present; well-marked Babinski; patellar jerks are absent. Legs are ataxic, arms very slightly so. Perioeteal reflexes of arms absent. Abdominal and pharyngeal reflexes present. No tremor except that of tongue. Sphincters of bladder and rectum are normal. There is a slight scoliosis in the mid-dorsal region.

Sensory System.—Sensations of pain, touch, locality and temperature are normal. There are no subjective sensory symptoms.

The Eyes.—Patient shows slight nystagmus in following an object moved from side to side (ataxia nystagmus). Accommodation for distance and reflex to light are normal. Discs are normal and sight is good.

The other special senses and the cranial nerves are normal. There are no trophic disturbances, and nothing abnormal is found in the alimentary, circulatory, respiratory, tegumentary and genito-urinary systems.

During her stay in the hospital an effort was made to teach the patient to walk. Under tuition she improved, and when she left the hospital ten days later she was able to stand unassisted and her gait had improved. She can do very fine crochet work.

The existence of inco-ordination in both upper and lower extremities, and of the ataxic nystagmus, together with the presence of Babinski's sign, rigid muscles of the calf and hollow foot, and with the absence of Argyll Roberston pupil and of all disturbances of sensation and of sphincters, would seem to justify a diagnosis of a combined sclerosis of the type of Friedrich's ataxia.

Clinical Department.

Vincent's Angina: With Report of Cases. By J. Douglas Blackwood, Jr., M.D., of Philadelphia.

In 1896, Vincent described a spirillum and a fusiform bacillus occurring together in certain cases of angina of an ulcerative type. This was followed by reports of cases by Bernheim, Mayer, Royster, Crandall, A. Gross, Toebben and many others.

Lesion.—The lesion produced by the spirillum and fusiform bacillus is ulcerative in type, in contradistinction to that produced by the diphtheria bacillus. When the necrosis is superficial, the necrosed epithelium, on the surface, often hides the depth of the lesion, thus resembling diphtheria very closely. If the layer is removed a distinct ulceration will be seen. While, as a rule, the deposit is easily removed, as reported by Mayer, at times, according to Auché, only the superficial layer is friable, or as mentioned by H. W. Bruce, the whole deposit may be hard to detach.

This deposit, however, is not due to the formation of a false membrane on the surface of the diseased area, but to necrosis of the superficial layers of that area with the formation of an ulcer. The ulcer varies in depth and extent, having perpendicular edges which may or may not be injected, and presents many granulations which bleed easily.

H. W. Bruce divides the process into two types, as follows:

Mild Diphtheroid Type.—This is generally unilateral, superficial, limited in extent, and gives no swelling nor injection of the fauces. There is slight glandular enlargement on the side of the lesion, and a slight elevation of temperature, lasting from 24 to 48 hours. There is no immediate change in the throat condition with the drop of temperature, but the slough finally drops off and an ulcer is revealed which quickly heals.

Ulceromembranous Type.—The condition spreads rapidly over a greater area and is much deeper. There is a slow separation of the slough in 10 to 14 days, during which time one-half of the tonsil or uvula may be destroyed, followed by granulations which bleed readily and heal rapidly. There may or may not be injection about the edges of the ulcer, according to the severity of the case. There may or may not be fever, and albuminuria is rarely present. Glandular enlargement occurs, but

never goes on to suppuration as it does in the adenitis following or occurring with the streptococcic angina of scarlatina. This type may cause septic pneumonia and death, as in a case reported by H. W. Bruce. One attack does not confer immunity from subsequent attacks, as stated by Bruce and shown by Case I. of this report.

Mayer states that endocarditis may also follow this disease.

B. fusiformis averages from six to twelve microns in length, being thick in the central portion and thinning out at both ends. There are flagella attached, one to each end and two to the sides, giving the bacillus an eel-like motion in a hanging-drop preparation, which, together with its reaction with Leishman's stain, has led A. E. Wright to think that this micro-organism is not of bacillary origin but has affinities with a trypanosome. It is stained by most of the common aniline dyes and often shows vacuoles and other forms of degeneration, but no spores are demonstrable. It does not grow readily upon ordinary culture media, either under aerobic or anaerobic conditions, except, according to G. Angelici, when cocci are added. The same observer also states that acetic acid favorably influences and sugars inhibit its growth. These bacilli often occur in pairs and frequently in groups. Angelici also states that this bacillus is the same as the *B. hostilis* of Seits and can be found in morbid processes throughout the alimentary canal.

Spirillum.—This is a faintly staining, wavy, long, thin, delicate micro-organism which stains with ordinary aniline dyes, but does not stain by Gram's method. It is considered by many to be a normal inhabitant of the buccal cavity, only becoming pathogenic in the presence of other micro-organisms.

These micro-organisms may be found in pure culture in the diseased areas, especially in those of deep ulceration. When the ulceration is superficial, there is often a polymicrobic infection, the spirilla and fusiform bacilli being associated with streptococci and staphylococci. While De Stoecklin claims that the presence of these micro-organisms precludes the existence of *B. diphtheriae,* Vincent, Toebben and Auché have reported cases in which the three organisms were present, and R. C. Rosenberger has reported the organisms present in a case of noma. Both of the organisms have been found by Grenet in cases that give no evidence of stomatitis.

The object of this paper is to report nine cases of this infection in children ranging from two to ten years, which occurred in the Children's Department of the Philadelphia Hospital during the summer of 1904. One of the positive smears was made from

the throat of an apparently healthy child who showed no signs of ulceration nor disease of the throat, tonsils, tongue, cheeks, gums, nor lips. In all, smears were examined from twenty-one children, and of these eight showed the presence of the fusiform bacillus in association with Vincent's spirillum, and one showed the presence of the fusiform bacillus alone. In one case pneumococci were found in the smear from the throat, while the spirillum and fusiform bacillus were found in that from the gums. The other twelve smears were made from the throats of children in the same department, but showed no signs of either of the micro-organisms mentioned.

For brevity we will dispense with detailed accounts of primary histories and physical examinations of the patients, only giving their initials and the symptoms which they exhibited during this infection.

Case I. J. W., female. During the course of the infection the patient had broncho-pneumonia, so it is impossible to state to what extent her irregular temperature (which rose as high as 103.2 degrees F.) was due to this infection. During the course of the pneumonia the Patient had two attacks of Vincent's angina, the seat of the first attack being upon the upper lip and lasting three days, being described in the history as an exudate. The seat of the second attack, which was a true angina, was upon the tonsils and pharyngeal pillars, which were covered with yellowish ulcerated patches. The tonsils were swollen and injected. The patches disappeared first from the tonsils and then from the pillars. The tonsils then became reduced in size and the redness subsided. This attack lasted twenty-two days and there was no glandular enlargement.

Case II. J. D., male. This patient had a slight elevation of temperature. There were a few patches of ulceration on the lips and bleeding from the gums. There was also a white superficial exudate on the tonsils. Examination of the smears from the tonsils showed the presence of pneumococci but no spirilla or fusiform bacilli, while that of smears from the lips showed these micro-organisms to be present. No glandular enlargement.

Case III. H. A., male. In this case there was a sudden rise of temperature in the evening to 103 degrees F., followed the next morning by a drop to 101.2 degrees F., rising in the afternoon to 103.2 degrees F., and dropping the next morning to 99.4 degrees F., and then rising to 101 degrees F., followed by a gradual fall to normal. Smears from the throat showed the presence of Vincent's spirilla and *B. fusiformis*. The post-

cervical glands were enlarged upon admission and showed no increase in size during the attack, which lasted four days.

Case IV. A. W., female. There was a sudden rise of temperature to 102.3 degrees F., followed by lysis lasting one week. During the first four days of the attack the child was slightly comatose, being aroused with difficulty, but during the remainder of the attack the child became much brighter. The sites of the lesions were the side of the tongue, which presented a small patch, and the roof of the mouth, upon which were two smaller ones. During the first four days the tongue was heavily coated. At the end of four days the patches had entirely disappeared from the tongue and there remained only a slight reddening of the roof of the mouth. There was no increase of a previously existing glandular enlargement during the attack. Examination of smears from the tongue and roof of the mouth showed the presence of Vincent's spirilla and *B. fusiformis.*

Case V. M. A., female. Examination of smears from throat showed presence of Vincent's spirilla and *B. fusiformis.* There was no rise of temperature.

Case VI. J. E., male. Examination of smears was positive for spirilla of Vincent and *B. fusiformis.* No glandular enlargement. No fever.

Case VII. P. B., male. Irregular temperature, first rising to 100.4 degrees F., then falling to 98.4 degrees F., again rising to 101 degrees F., followed by drop to normal by lysis. No glandular enlargement. Smears from throat were positive for Vincent's spirilla and *B. fusiformis.* Attack lasted four days.

Case VIII. J. F., male. Healthy child. Smears from throat showed presence of *B. fusiformis* but no spirilla.

Case IX. P. H., male. Healthy child. Smears from throat showed presence of both Vincent's spirilla and *B. fusiformis.*

Summary.

Of these nine cases, seven were of the superficial or mild diphtheroid type of Bruce, and two were in healthy children, smears from whose throats showed the presence of *B. fusiformis* and in one instance the association with the spirillum.

The diphtheroid type of cases began with sudden rises of temperature, reaching, as in Case III., an elevation of 103 degrees F. The temperature then pursued an irregular course, varying from 2 to 3 degrees F. in its course, or gradually dropping to normal, as in Case IV. In all the cases showing fever the temperature fell by lysis. The pulse and respiration rate followed the temperature curve. As a rule, the patient did not

show any marked constitutional effects except in Case IV., this patient being comatose for the first four days of the attack.

The seat of the attack was on the lips, tongue, gums, cheeks, tonsils, or pharynx, and in none was there marked destruction of tissue. In none of the cases was there glandular enlargement except that which existed prior to the disease. In all the cases the fusiform bacilli were in greater numbers than the spirilla, thus fulfilling the claims of Bruce. The attack lasted anywhere from four days, as in Case III., to twenty-two days, as in Case I., the ulcerative condition still persisting after the temperature had become normal.

My thanks are due to Dr. R. C. Rosenberger, director of the clinical laboratory of the Philadelphia Hospital, for assistance on these cases and for guidance in my references.

A pulsating tumor of the os ilium (endothelioma, sarcoma) may easily be mistaken for a gluteal aneurysm.

If a thrombosing pile is opened before the clotting is complete, it is very apt to fill up again, and may even become edematous and inflamed.

The appearance of pus in the breast of a woman who is not, or has not recently been, nursing, is suspicious of some unusual form of infection, *e.g.*, tuberculosis.

Bleeding from capillary hemorrhoids high in the rectum usually yields to injections of cold water, or a cold solution of tannic acid. In these cases, however, it is important to exclude the presence of an ulcer further up.

When performing an office operation, too great care cannot be taken to sufficiently roll back or remove such articles of clothing as might become soiled. The patient may not say much if he is obliged to draw up a garment wet with blood—but he'll probably think a few things.

Repeated attacks of "indigestion," not obviously due to some other condition, should awaken the suspicion of gall-stones. Most of the patients operated upon for cholelithiasis give a history of having been treated for a long time for "dyspepsia," and in many of these cases the correct diagnosis might earlier have been established.—*American Journal of Surgery.*

Physician's Library.

International Clinics. Vol. I. Seventeenth Series. 1907. Philadelphia and London: J. B. Lippincott Company.

An especially valuable volume is this, as there is recorded the progress of medicine and surgery in 1906, 104 pages of the text. This places every reader in possession of the salient advances during the past year. Such well-known writers as Senn, Barker, Morton, De Schweinitz, Dennis and Gallant have contributed exceptionally good articles to this volume.

Insanity—Cured by a New Treatment. Details of Twenty-one Cases. By C. W. SUCKLING, M.D. (Lond.), Birmingham. Price, 2 shillings. Birmingham: Cornish Bros., Ltd.

This brochure first gives reasons why dropped kidney causes insanity, and then goes on to give short, concise histories of the cases. Of course the cause of the insanity in these cases is toxic; nephropexy is now quite a common operation. Operations on insane patients is not yet well established in Canada.

Paraffin in Surgery. A critical and clinical study by WM. H. LUCKETT, M.D., Attending Surgeon, Harlem Hospital, Surgeon to the Mt. Sinai Hospital Dispensary of New York, and FRANK I. HORNE, M.D., formerly Assistant Surgeon, Mt. Sinai Hospital Dispensary. 12mo; 38 illustrations; 118 pages. Cloth, $2.00. New York: Surgery Publishing Co., 92 William Street.

This book covers a special field in surgery of absorbing interest both to the surgeon and general practitioner. The research and original investigations made by these authors in the use of Paraffin have exploded many fallacies previously maintained. It presents the Chemistry of Paraffin, the Early Disposition of Paraffin in the Tissues, Physical State of the Paraffin Bearing on its Disposition, the Ultimate Disposition of Paraffin, Technic and Armamentarium. It thoroughly covers the use of paraffin in cosmetic work, such as saddle nose deformity, de-

pressed scars, hemiatrophia facialis, with a large number of photographs showing cases before and after operation, with illustrations of micro-photographs of the disposition of the paraffin in the tissues. It also presents other conditions of a functional character, where paraffin can be used with service, such as incontinency of urine, umbilical hernia, umbilical and ventral hernia, epigastric hernia, inguinal hernia, etc. The subject is presented in a scientific yet comprehensve manner.

Full details are given as to the method of preparing the paraffin, as well as the method and manner in which it should be injected. This book presents a wide field for the use of paraffin, and a copy should be in every physician's library. It is printed upon heavy coated book paper and attractively bound in the best quality of heavy red cloth, stamped in gold.

Tics and Their Treatment. By Henry Meige and E. Feindel, with a Preface by Professor Brissaud. Translated and edited, with a Critical Appendix, by S. A. K. Wilson, M.A., M.B., B.Sc., Resident Medical Officer, National Hospital for the Paralysed and Epileptic, Queen Square, London, England. London: Sydney Appleton.

A book on Tics is timely, interesting and important, as hitherto not very much attention has been given to these reputedly harmless "movements of the nerves." The volume, which is the result of many years of observation on the part of Messrs. Meige and Feindel is one of 350 pages, with a vocabulary of some thirty pages. Although for many years "tic" was practically eliminated from text-books of diseases, within recent years, owing to a closer study of reflex acts, there has taken place a grouping which has resulted in assigning tics, spasms and convulsions to their proper place. The book will prove a useful one on the subject.

The Doctor's Recreation Series. Volume VI. Passages from the Diary of a Late Physician. Being a New Edition of Selected Passages. By Samuel Warren, B.C.L., F.R.S. The Series edited by Charles Wells Moulton. Akron, Ohio, U.S.A.: The Saalfield Publishing Co.

This is one of the best of all the volumes of this very entertaining and interesting series. These first appeared in Blackwood's Magazine several years ago. They were collected and

printed in one volume complete in 1838. The first, "Early Struggles," alone, will well repay any man in the medical profession, in that there are sufficient heartrending trials to scare most young men from ever attempting to enter the medical profession. The style of the writer throughout is direct, occasionally powerful, at all times true and unaffected. Some articles treat on subjects of most painful experiences in the practice of medicine, yet all are encountering these, even at the present day. It is a book of real life as seen by an observant medical man.

An Epitome of Diseases of the Nose and Throat. By J. B. Ferguson, M.D., of the New York Post-Graduate Medical School. 12mo, 243 pages, with 114 engravings. Cloth, $1.00 net. (Lea's Series of Medical Epitomes. Edited by Victor C. Pedersen, M.D., New York.) 1907. Philadelphia and New York: Lea Brothers & Co., Publishers.

The author has presented in concise and practical form the diagnosis and treatment of diseases of the throat and nose. He has planned the book to be helpful to the undergraduate and post-graduate medical student in gaining familiarity with laryngological work, and likewise to the general practitioner, who is often called upon to treat diseases of this region, and who needs to have the chief points in diagnosis and treatment concisely placed at his command. All these classes of readers will appreciate the systematic arrangement, the clear directions for examination, the illustrations of preferable instruments and of diseases, and the abundant formulæ for the best medication. The Medical Epitome Series, of which this is the latest volume, will cover the whole range of medicine, surgery, and the specialties in original books written by recognized authorities, and uniformly priced at one dollar.

In the treatment of hand and finger infections, it is very important to release from bandaging as much and as many of the fingers as possible, and as soon as possible. The habit of bandaging up immovably all the fingers, in the treatment of a lesion of some of them, saves the surgeon time but, except in short cases, it often cripples the hand by stiffening the fingers.—*American Journal of Surgery.*

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enrol themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $2.50 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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COMMENT FROM MONTH TO MONTH.

To be cut down in the prime of manhood and in the zenith of his success, as was Dr. George Peters, is sad, particularly sad when one remembers his strenuous life. He had reached the top notch of the ladder of fame and was one of the best surgeons this country had produced. Indeed, by his original work and unusual ability he was fitted to rank with the leading surgeons in America as well as in the Old Land. His contributions to medical literature were always able. In military circles he was also in the front rank. In the saddle he was a fearless rider. As a lecturer and teacher the full attendance in his classes testified to his ability and to his appreciation by his students. In fact, everything he undertook to do was done well, as well as a clear and strong brain could direct him to do it.

Oronhyatekha, M.D., 1841-1907, was the most celebrated, civilized descendant of a picturesque race. Born on the reserve, near Brantford, Ontario, of the Mohawk tribe of the Six Nations, he began life for himself on his native soil as a schoolmaster. Subsequently he entered Toronto University, from which institution he was graduated in 1866. The story of his life prior to this time and afterwards has often been told, how he was taken up by the then Prince of Wales and placed under the tutorship of the late Sir Henry Ackland, at that time Regius Professor of Medicine at Oxford, a professorship now occupied by a distinguished Canadian. On his return to Canada he received his license to practice in Ontario in 1867. He is said to have been the first secretary of the Hastings County Medical Society, and even to have shown at that time a great facility for organization work. Twenty-six years ago he became Supreme Chief Ranger of the Independent Order of Foresters, in which connection he obtained a world-wide reputation.

The Bulletin of the Toronto Hospital for the Insane should prove a welcome message to every practitioner in Ontario. The title sounds well. It is well to omit the word "asylum." But we find the title of asylum adhered to in the interior, which does not appear to be consistent. It is a new journal which proposes to devote its pages to the interests of psychiatry in the province of Ontario, and is printed by the order of the Legislative Assembly of the province. Following as it does soon after the appointment of a resident pathologist to this institution, it induces the belief that a determined and progressive endeavor is to be made in the study of psychiatrics here, which will be sure to place the subject as it is in Ontario well to the fore amongst the alienists of the world.

Trypsin for cancer, seems to have gone the way of all other sensational cures for desperate diseases, whose wonderful efficacies are first projected through the medium of an enlightened but thoroughly dense—so far as medical matters go—public

press. It will be remembered that the case from which Dr. Saleeby drew all his inspirations for his exciting article of ephemeral and doubtful and now absolutely unauthenticated stability, and which was published in the *Pall Mall Gazette*, was the same case as was described by Dr. Morton as "a most remarkable atrophy of an entire cancerous breast." Quite recently, Dr. Bainbridge, of New York, has published a full and correct account of this case; and it turns out that this selfsame breast had not only been treated with injections of trypsin, but had been repeatedly exposed to the X-rays. The tumor was subsequently examined by several good and competent pathologists; and whilst it showed in its central parts degeneration of the cancer cells, with increase of connective tissue, it as well showed peripherally "columns of tumor cells in good condition extending into the lymph spaces." One pathologist stated that the tumor had "the typical appearance of scirrhus cancer." Much as scientific men regret that no cure other than complete and radical operations has as yet been found to cure cancer, they cannot do anything else but also regret and deplore this unseemly haste on the part of some who are in such a hurry to inform the public before they inform their own profession that something of scientific importance has been discovered. Investigators need to be cautioned to make haste slowly.

Malaria and the name of Major Ronald Ross, F.R.S., are in these days intimately associated. As Major Ross tells us the story of malaria, he reminds us that our present knowledge has been the result of over two thousand years of study. In fact, it is a gigantic epic of science. From the writings of Hippocrates and his successors we learn that four hundred years B. C. the Greeks and the Romans were studying malaria, who had at even that remote time distinguished that fevers of this character were not continuous in type, but that they occurred in attacks classified as quotidian, tertian and quartan. They also found out at that time that there was some connection between the disease and marshes and swampy pools, and hinted even at the microbic origin of the disease. Long years passed, and Major Ross tells

us that the next step forward was taken in South America. About the year 1840 it began to be known in Europe that a resident of a town in Ecuador had made the discovery that Peruvian bark was an efficient remedy for malaria. This then acquired fame after it had been used for the agues of Louis XIV. Soon after this, British military and naval surgeons discovered that malarial fevers were common in all tropical and sub-tropical countries. In 1880, Laveran, a French army surgeon, announced to the medical world that he had discovered a parasite in the blood of patients attacked by malarial fever, and the disease became established upon a scientific basis. Now developed the problem as to what the story of malaria had to reveal as to the habitat of these protozoan parasites in external nature. In 1894, Major Ross was told by Dr. Manson of the latter's theory that these parasites had the ability to transfer themselves from one species of animal to another. Two years afterwards, when almost in despair over ceaseless experiments, his researches were rewarded by discovering in the tissues of a new species of mosquito the very bodies he was in search of. Since that time the history of the study of malaria has been well reproduced in the current medical literature of the day. It is now a subject for the sanitary scientist.

The Ontario Medical Association.—The Provisional Programme for the coming meeting has already been issued to the profession of the province. It should prove of interest to every practitioner. Of special moment will be the address in Medicine by Dr. Mazyck P. Ravenel, of the Phipps Institute, Philadelphia, on "The Methods of Infection in Pulmonary Tuberculosis," and the address in Surgery by Dr. George W. Crile, Professor of Clinical Surgery, Medical Department of the Western Reserve University, Cleveland, dealing with the "Clinical and Experimental Observations on the Direct Transfusion of Blood." The Committee have also invited Dr. William Milligan, of Manchester, ex-President of the British Laryngological and Rhinological Association, and Professor Gustave Killian, of Freiburg, Germany, who will be guests of the American Medical

Association a few days later at Atlantic City. Symposia upon "The Profession in Relation to the Public," and on the subject of "Fractures," will open interesting discussions, beside which the programme of papers promises many important topics for consideration. A smoking concert and a dinner are items in the programme under the care of the Committee on Arrangements. The meeting will be held in the Medical Building, Queen's Park, on the 28th, 29th, and 30th of May next.

Lumbar puncture is now well established in the diagnosis of such nervous disorders as tabes, general paralysis of the insane, syphilitic lesions of the central nervous system, tubercular meningitis, purulent meningitis, epidemic cerebro-spinal meningitis, serous meningitis, sarcoma of the spinal meninges, and some others. These rules should guide one in the operation: Patient placed on left side. Forward flexure of vertebral column as much as possible. Locate interval between 3rd and 4th or 4th and 5th lumbar vertebrae by line from upper limit of iliac crests. In children, in the middle line. In adults about one-half inch to either side. First sterilize the skin at this point. No anesthetic, unless pain is feared, is necessary, then use ethyl chloride. Push needle slightly upward and towards the middle line in adults. Needle should be three inches long and the piston of syringe withdrawn. If bone is struck withdraw and try again. When resistance ceases, about one inch in child, two and one-half in adult stop and allow one to two c.c. to flow. Do not aspirate. Seal the puncture with celloidin or collodion. Keep the patient in bed 12 to 24 hours thereafter. And remember that at least fifteen cases of sudden death after lumbar puncture have been recorded. Usually there is slight headache after the operation.

News Items.

Dr. W. R. G. Phair, of Winnipeg, is visiting in Cuba.

Smallpox has been epidemic in Charlottetown, P. E. I.

The Montreal General Hospital will be rebuilt at a cost of $500,000.

The medical course at McGill University has been enlarged to five years.

Dr. H. B. Cushing, Montreal, has returned from graduate work in Germany.

The Royal Jubilee Hospital, of Victoria, B.C., is to have a new nurses' home.

Stratford, Ontario, General Hospital is to have an addition at a cost of $20,000.

The mother of Dr. William Osler died in Toronto on the 18th of March in her 101st year.

Dr. J. A. Smith has returned to Shelburne after taking a post-graduate course in New York.

The Canadian Fraternal Association is interesting itself in combatting tuberculosis in Canada.

The number of patients treated in the Winnipeg General Hospital in February, 1907, was 657.

Vancouver, B.C., General Hospital will spend $20,000 more on additional equipment and fittings.

Over half a million dollars will be raised to complete the new Notre Dame Hospital, Montreal.

The St. Catherines, Ontario, Marine Hospital has been presented with a new property worth $15,000.

A MOVEMENT is on foot to establish a Jewish hospital in Montreal, to be called the Mount Sinai Hospital.

THE Quebec Legislature has decided not to make the five years' course in medicine compulsory in that province.

DR. P. H. BRYCE, chief medical officer of the Department of the Interior, has been on an official trip to the Pacific Coast.

THE Hamilton Health Association, conducting the Sanatorium for consumptives in that city, has a bank balance of $28,616.99.

IF you want good books of standard authors consult our front form page advertisement of Mr. Clinton T. Brainard, New York.

DR. W. J. DOBBIE, late of the Weston free Consumption Hospital, has been appointed superintendent of the Muskoka Cottage Sanatorium.

DR. HARRY J. WATSON, of Winnipeg, was recently operated on in the Toronto General Hospital, and we are glad to report that he is recovering.

DR. LEEMING, bacteriologist, of Winnipeg, reports that for the month of February he did 513 tests, as against 375 in the same month last year.

DR. FLOOD, a native of the city of Quebec, was frozen to death while engaged with the police detachment under Major Moodie at Fort Churchill.

THE Federal Government has presented to British Columbia four hundred acres of land for the proposed sanatorium for consumptives in that province.

DR. BURNS is discharging the duties of medical health officer in Winnipeg during the absence of that city's official medical man, Dr. Corbett, in Italy.

DR. J. H. ELLIOTT has resigned from the superintendency of the Muskoka Sanitarium, and after a few months abroad will commence consulting practice in tuberculosis in Toronto.

Dr. T. H. Richards, Bracebridge, has gone to Chicago, where he will enter upon a six weeks' post-graduate course at the University of Chicago.

The Canadian Association for the Prevention of Consumption held its annual meeting in Ottawa on the 14th and 15th of March. Dr. Charles Sheard, M.H.O., Toronto, delivered a popular public lecture on the subject of tuberculosis.

Dr. R. T. Williams, who is giving up his position under the Imperial Government in the West India Islands, is going to Tillsonburg and will assist Dr. Bennett in his practice during the summer.

The Canadian Society of the Superintendents of Training Schools in Canada was organized in Toronto on the 30th of March. Miss Snively of the Toronto General Hospital was elected president.

Dr. Francis J. Shepherd's recent appointment to the consulting staff of the Royal Victoria Hospital, Montreal, does not mean that his connection with the Montreal General Hospital has been severed.

On the 1st of January, 1906, there were in the Protestant Hospital for the Insane at Verdun, Que., 503 patients, and during the year 87 men and 64 women were admitted. The discharges were 110 and the deaths 31.

The Canadian Hospital Association was organized in Toronto on the 1st of April. Miss Brent, of the Hospital for Sick Children, was elected president, and Dr. J. N. Elliott Brown, superintendent of the Toronto General Hospital, secretary.

In the recent examinations at the New York City Hospital for house surgeons' positions, two McGill graduates, Dr. A. L. McLennan and H. LeBaron Peters, received first and third place respectively.

A deputation from the Ontario Medical Association, headed by the president, Dr. George A. Bingham, Toronto, and secretary, Dr. Charles P. Lusk, Toronto, waited on the Ontario Government and pressed for the early establishment of a Ministry of Health in this province.

Dr. W. A. Ross, Barrie, who has been spending the winter in the large city hospitals of Chicago, doing post-graduate work, is expected home soon and will resume his practice.

The Deer Park Sanitarium, corner of Heath and Yonge Streets, Toronto, is a clean, tidy, up-to-date private hospital, where patients are well looked after by the superintendent and attendants in charge. The equipment embraces a very fine Static machine.

A semi-editorial writer in the *Mail and Empire*, Toronto, thinks that the Ontario Medical Council should discipline medical practitioners who make wrong or delayed diagnoses. Whew! If newspapers were fined for all the mistakes they exhibit in one issue of their papers—Gee Whiz!

Dr. James Stewart's place as Professor of Medicine and of Clinical Medicine at McGill University, Montreal, has been filled by the appointment of Drs. F. G. Finley, H. A. Lafleur and Chas. F. Martin. The former will conduct the didactic work, whilst the two latter will have charge of the hospital teaching.

The following appointments have recently been made in militia circles of senior medical officers: Eastern Ontario—Lt.-Col. W. A. Willoughby, Lt.-Col. R. W. Garrett and Lt.-Col. J. A. McCammon. In Quebec Command—Lt.-Col. H. Trudel, Lt.-Col. J. P. Lord, Major E. R. Brown and Major P. Ostigny.

Owing to lack of funds there will be no more medical inspection of schools in Montreal for the present. It is claimed that since medical inspection was begun six months ago there has been an improvement of seventy per cent. in cleanliness and a like percentage in lessening of infectious diseases amongst the school children of Montreal.

Dr. Samuel Richardson, one of the veteran physicians of York County, passed away in the town of North Toronto on March 26, 1907. For upwards of thirty years he has practiced on the Crest of Eglinton Hill, and was known in a wide radius of country. He served as coroner for a number of years, and also took part in the municipal affairs of York Township. Early in the winter the doctor was attacked with typhoid and pneumonia, from the after effects of which he did not rally. He was in his sixty-fifth year.

THERE were admitted to the British Columbia Hospital for the Insane at New Westminster last year 150 patients, 27 more than in the previous year. Of these 108 were males and the balance females. The number admitted from the Yukon was 19. During the year 79 patients were dishcarged, the largest number in any one year since the establishment of the institution.

DR. WILLIAM LANE died at his home in New York on March 14th, from heart failure. He was born May 3, 1833, in Gainsboro', Canada, and was graduated from Toronto University and obtained his medical education in Cincinnati. He practiced medicine in St. Catharines, Ont., and later at Lockport, N.Y. His wife, two sons and a daughter survive him. He was buried in St. Catharines, Ont.

THE *Canadian Practitioner and Review*, published at Toronto, recently had a long and strong editorial on the uncharitable policy of the management of the Toronto Street Railway in refusing to pay doctors' charges for services rendered in accidents to employees and travellers. Will the Toronto doctors refuse to attend these accidents in future? The courts have decided that the Railway is only liable where the manager himself has summoned the physician.

CHANGES in the medical staff of the Muskoka Cottage Sanatorium, made necessary by the resignation of Dr. J. H. Elliott, physician-in-charge, are now in the making. Secretary J. S. Robertson, of Toronto, announces that Dr. Dobbie, for some time in charge of the hospital at Weston, will assume the post. Dr. Elliott will spend the summer in foreign study, and then practice as a consulting physician on tuberculosis in Toronto.

DR. DOMINGO ORVANANOS, of Mexico, president of the American Public Health Association, recently appointed Dr. Robert M. Simpson, chairman of the Manitoba Board of Health, on a committee with Dr. Peter H. Bryce and Dr. Frederick Montizambert to further a project for the establishment of a Dominion Department of Health, under the direct administration of a cabinet minister. Committees were also appointed by the president to urge upon the United States, Cuba, and Mexican governments the advisability of a similar course. This action has been taken by virtue of a resolution passed at the Association's meeting in Mexico last December, in which it was asserted that public health matters could only be satisfactorily dealt with by the formation of national departments of health.

THE Alumni of the Manitoba Medical College held their first annual reunion banquet on the evening of the 11th of March. This college has now been doing work for twenty-four years and has some four hundred graduates. Dr. Westbrook, Dean of the University of Minnesota, one of the college's distinguished graduates, was present and delivered an able address. The following committee had charge of the banquet: Drs. Gordon Bell, E. S. Popham, E. W. Montgomery, C. T. Sharpe and W. A. Vrooman.

REUNION OF TRINITY MEDS.—The old medical graduates and the final graduating class of Trinity celebrated the extinction of Trinity University as a school of medicine by a banquet recently at McConkey's restaurant. Medical men from various parts of the Dominion, and even one from New York, who claim Trinity as their Alma Mater, gathered together to talk over old times and commiserate with one another that the brilliant future each had foreseen for Trinity had been so suddenly cut off. Dr. Geikie, the former dean of the medical faculty, referred in eloquent terms to the hope he had cherished of seeing his beloved university grow and develop into one of the leading schools of medicine on this continent, hopes that were shattered when the amalgamation with the Medical School of the University of Toronto was carried out. Notwithstanding the note of sadness noticeable in the speeches of the older graduates, the pleasure experienced at meeting together with others having so many memories in common was, however, the predominating feeling, and the undoubted success which met the efforts of the promoters of the banquet is likely to make the reunion of Trinity Meds. an annual function. The committee who promoted the banquet were: Dr. W. B. Geikie, hon. chairman; Dr. J. A. Temple, hon. vice-chairman; Dr. F. W. Marlow, toastmaster; Dr. McMurrich, Dr. Pepler, Dr. T. B. Richardson, Dr. Hayden, Messrs. G. H. Worthington, O. A. McNichol, W. T. Sheck, B. S. Cerswell, and James Sprout. The old grads. who responded were: Dr. George P. Ardagh, Orillia; Dr. G. B. Boyd, Coldwater; Dr. T. J. Browne, Streetsville; Dr. C. H. Bird, Gananoque; Dr. J. W. Brien, Essex; Dr. Neil Campbell, Thorold; Dr. T. Douglas, Warsaw; Dr. R. W. Irving, Gananoque; Dr. E. P. Kelly, Orillia; Dr. Lapp, Pontypool; Dr. J. C. McGibbon, Honeywood; Dr. H. B. Hutton, Port Colborne; Dr. J. Archer Brown, Coboconk; Dr. A. L. Danard, Owen Sound; Dr. C. Bingham, New York; Dr. Luke Teskey, Dr. G. A. Bingham, Dr. Stanley Ryerson, Dr. Sterling Ryerson, Dr.

John Fotheringham, Dr. C. R. Sneath, Dr. J. N. Anderson, Dr. R. J. Dwyer, Dr. Gibb Wishart, Dr. S. Johnston, Dr. D. Anderson, Dr. H. Glendenning, Dr. P. G. Goldsmith, Dr. Charles Trow, Dr. N. A. Powell, Dr. J. L. Bradley, Dr. W. B. Bryan, Dr. Andrew Eadie, Dr. E. H. Greene, Dr. C. H. Thomas, Dr. H. Clare, Dr. J. McConnell, Dr. J. Rowan, Dr. George Strathy, Dr. J. A. Kinnear, Dr. H. Becker, Dr. M. J. Perkins, Dr. A. E. McKay, Dr. A. G. A. Fletcher, Dr. C. B. Shuttleworth, Dr. W. A. Peart, Dr. E. Clouse, Dr. W. B. Kendal, Dr. C. A. Simple, Dr. J. M. McCormack, Dr. M. O. Scott, Dr. A. H. Garratt, Dr. C. A. Campbell, Dr. M. A. Kendrick, Dr. Brefney, O'Reilly, Dr. M. L. G. McGibbon, Dr. Walter McKeown, Dr. W. H. Lowry, Dr. W. S. Harrison, Dr. A. Jukes Johnson, Dr. R. B. Nevitt, Dr. N. Anderson, Dr. J. K. M. Gordon, Dr. H. C. Parsons, Dr. C. P. Lusk, Dr. Reade, Dr. T. H. Ashley, Dr. Henwood, Dr. A. Davidson, Dr. F. C. Stephenson, Dr. John E. King, Dr. G. W. Brand, Dr. Thomas Mason, Dr. Burgess, Dr. F. Fenton, Dr. J. T. Clarke, and Messrs. Albert Crux, M. L. Kendrick, J. L. Bingham, and S. T. White.—Report in *Mail and Empire.*

Do not operate for foreign body in the knee joint without first excluding dislocation of one of the semilunar cartilages.

Fractures of the neck of the femur in old people sometimes cause no other symptoms than disability. The mildness of the trauma and the freedom from much pain should not deceive one.

In amputations below the knee, insist on active and passive motion in the knee joint at an early date. If this is not done contracture ensues, which makes the application of an artificial limb difficult.

In compound fractures involving loss of continuity do not needlessly remove any piece of bone that has even the smallest attachment. It is surprising how often such pieces heal into the wound and thereby help to save loss of substance.

In cases of renal colic do not make too positive a pre-operative diagnosis of calculus, no matter how typical the symptoms may be. It has happened very often at the time of operation that no stone is found. Fortunately, these cases are nearly always cured by the exploratory nephrotomy.—*American Journal of Surgery.*

Publishers' Department

"ERGOAPIOL" (SMITH): ITS THERAPEUTICAL INDICATIONS; WITH CLINICAL NOTES.—We desire to call the attention of the medical profession to a new pharmaceutical product possessing valuable therapeutic virtues in many diseases peculiar to women. This remedy is known as "Ergoapiol" (Smith), and since its introduction to the profession it has rapidly gained favor with our best physicians. It is strictly ethical, manufactured from the purest drugs, and advertised only to physicians. It is the result of an original combination of the following remedies: apiol, ergotin, oil of savin, and aloin, all of which are freed from toxic and deleterious substances. These agents are blended in such proportions as to evercome the powerful irritating qualities of each and raise the tonic properties of all. A glance at the therapeutical indications of these remedies singly will convince the most skeptical of the virtues of "Ergoapiol"—the result of their combination. Since the days of Jaret, Homolle and Baillot, apiol has gradually grown in favor as a therapeutical agent, but until recently it had one decided drawback, that of containing deleterious and toxic impurities in combination. Recently, through the skill of the never-tiring pharmacist, these have been eliminated, and it can now be prescribed without fear of producing disagreeoble symptoms, but with an assurance that its full therapeutical virtue will be realized. Even in its impure state apiol gained considerable reputation in the treatment of nephritis, dropsical effusions, amenorrhea and dysmenorrhea. Its emmenagogue properties have been greatly enhanced by the removal of all impurities. In small doses it now became a mild aromatic stomach tonic; it is also highly recomended in membranous dysmenorrhea. The therapeutical value of ergotin is too well known to call forth comment here. Combined as it is in "Ergoapiol," it becomes an excellent adjunct to apiol, and adds very materially to the efficiency of the finished product. All students of medicine are aware that oil of savin is a powerful and valuable stimulant to the uterine system, and is one of the most potent emmenagogues known. It is also a powerful gastro-intestinal irritant, and therefore is seldom prescribed alone. But when combined with certain correctives, as it is in "Ergoapiol," it becomes a valuable addition to the drugs already named—apiol and ergotin. Since the discovery of the methods

of producing aloin from the different brands of aloes this drug has become very popular, and has taken the place of the crude drug to a considerable degree. Aloin enters into almost every emmenagogue pill and mixture. Its value as a therapeutical agent is so well known that it is not necessary for us to speak of it in detail, yet we desire to say that its addition to the drugs in question aids very materially in making "Ergoapiol" so valuable a combination. Being a mild stomach tonic, it aids in overcoming the irritable qualities of the savin; also acting as a hepatic stimulant, freeing the portal circulation and relieving the torpid condition of the lower bowel, it goes a great way toward relieving that condition so often present in diseases of women—pelvic engorgement. These qualities make it an ideal adjunct to the emmenagogues mentioned. Our attention was called to "Ergoapiol" (Smith) through a reprint from a St. Louis journal. This reprint gave the names of remedies entering into the combination. We at once concluded that this product would be a useful one, and securing a supply we began prescribing it wherever indicated. The results were even greater than we had anticipated. From the beginning we have kept clinical notes of each case, some of which will be recorded in this article. "Ergoapiol" is a mild, aromatic stomach tonic, anodyne, antispasmodic, and hepatic stimulant. It is also a laxative, an ideal emmenagogue in the full sense of the term, and exerts a decided tonic influence upon atonic conditions of the pelvic viscera. It is indicated to a greater or less extent in all forms of dysmennorrhea, viz., atonic, congestive, obstructive and membranous. In true obstructive dysmenorrhea due to actual stenosis of the uterine canal, to a sharp flexure of the organ, or to the valve-like action of a clot or a polyp, it is seldom indicated, because this form of organic dysmenorrhea requires either surgical operations or mechanical means to effect a cure. However, good results may be expected from its use after such operations have failed to complete a cure or to relieve the suffering. It it even useful in the form where clots cause the trouble by their mechanical obstruction, and we have seen its administration cause the passage of a polyp in one patient. Good results may be expected from its use in that form of dysmenorrhea known as membranous, due to an exfoliation of the endometrium in the form of a membrane. In amenorrhea it is far superior in value to any remedy we have yet tried, if the cases are properly selected. Amenorrhea due to taking cold at the menstrual period, or caused by shock, can be relieved with the remedy in question. This remedy is occasionally beneficial

in certain forms of metrorrhagia, after operations to remove fungoid or polypoid growths, or after curetting the uterus. It is a remedy of great value in menorrhagia, especially in that form due to fecal impaction, with torpidity of the liver in persons nearing the menopause. Where this trouble occurs in a plethoric and indolent subject the following plan of treatment will generally be all that is necessary: Begin three or four days before menstruation is due, and give one brisk mercurial purge, then follow with "Ergoapiol," one capsule three times a day. If this plan is carried out for several months at each menstrual period, a cure will be the result. "Ergoapiol" is especially indicated when disturbances of menstruation occur in feeble and anemic women. It should be alternated with some form of iron in such cases. There is a condition in which the patient's menses are regular as far as time is concerned, but the flow is very scant, exceedingly thick, tarry in color, with an offensive odor. The patient suffers pain and weight in the pelvis and back; is despondent, loses flesh and strength, and may or may not suffer from various reflex disturbances. In this state of affairs "Ergoapiol" will be found a sheet-anchor. Before recording the clinical notes gathered while prescribing the drug under consideration, we wish to call attention to one or two important things before leaving the subject. The first is that form of amenorrhea that is brought about by constitutional disease, such as tuberculosis. In these conditions it is a common occurrence to have women insist on their physicians giving them something to bring on menstruation, thinking that its absence is a cause of their condition, when the fact is the stopping of menses is only a wise provision of nature to prevent faster decline of vital forces. The course to be pursued is to treat the constitutional disease, and when a cure of the latter has been accomplished this form of amenorrhea will generally take care of itself. However, when the patient's general health has been restored, and the function fails to return, then "Ergoapiol" can be prescribed with good results. Our second subject is that of prescribing emmenagogues indiscriminately, without regard to the cause of amenorrhea. Women who know or suspect themselves to be pregnant frequently consult a physician in the hope that, in the attempt to bring on menstruation, he will really succeed in causing abortion. Whoever, under such circumstances, prescribes "Ergoapiol" with the understood purpose of inducing the menstrual flow, is liable to have criminal charges brought against him in case abortion actually does take place, even as the result of something the woman has taken or done herself. Before pre-

scribing "Ergoapiol" in amenorrhea the physician should satisfy himself that pregnancy does not exist, and in case of doubt he should decline the management of the case, unless he can protect himself by securing some trustworthy consultant who will share the responsibility of the case.—*C. W. Canan, B.S., M.D., Ph.D.*

On the morning of March 4th Kress & Owen, New York, were visited by fire, which practically destroyed the manufacturing end of their business. They had, however, a duplicate plant in storage, and we are pleased to state that after four days and nights of continuous work they were again turning out Glyco-Thymoline. We regard this as a record.

Sanmetto in Prostatic Irritations, Urethral and Bladder Troubles.—I have used Sanmetto extensively in my practice in prostatic irritations, urethral and bladder troubles, and am well pleased with the results obtained. In cases where the drug is indicated I always feel confident of obtaining good results.—*J. A. Downey, M.D., Logansport, Ind.*

I do not hesitate to declare myself a friend of Resinol Ointment and Soap. I have used them with splendid results in herpes, eczema, psoriasis and pruritis. I shall continue to recommend and prescribe them.—Dr. Jose R. Pimentel, Acambaro, Gto., Mexico.

Typhoid Fever.—Typhoid fever has ceased to be a bugbear to the modern physician. Since the sulphocarbolates have been introduced perforation is practically unknown and the victim of typhoid in these days often leaves his bed in ten days. Podophyllin and leptandrin, together with blue mass and soda in small divided doses followed by saline secures an empty *prima via*. Saline should always follow the above medication. The sulphocarbolates are then pushed, five to ten grain doses, until the stools are odorless. Aconitine, strychnine and digitalin control the temperature easily, and nuclein supports vitality and

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enables the system to dispose of the bacilli in their weakened form. There is often a malarial element present, and quinine arsenate or the Triple Arsenates with Nuclein (Abbott) prove very effective.

On November 8th, 1906, I gave your hyoscine, morphine and cactin compound a fair trial as follows: An Indian woman of the Timphnute tribe at Caliente, Nevada, was badly cut about the head and face as follows: Her upper lip was cut from the antrum of Highmore to the mouth in two parallel cuts resembling a double cleft lip. I gave the tablet as directed in your letter. The patient slept quietly during the operation of suturing, and at the end of one hour after the operation she awoke and went about her business with no apparent ill-effects from the anesthetic and no pain. I shall use it in my surgical practice hereafter and will let you know the outcome. I shall also try it in obstetrical work. It looks to me as though you have made a great stride forward in surgical and obstetrical anesthesia.—W. P. Murray, Caliente, Nevada, in *The American Journal of Clinical Medicine,* Feb., 1907.

The epidemics of la grippe which have made their annual onslaughts for some years, have taught us that this disease, once considered of no serious consequence, is so dangerous and difficult to treat, that any suggestion regarding medication is always gratefully received. With each succeeding visitation of this trouble, we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and heart sustainers, rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging action of skin and kidneys, with possibly minute doses of blue pill or calomel. We have found much benefit from the use of Antikamnia & Codeine Tablets in the stage of pyrexia and muscular painfulness. This tablet, containing 4 3-4 grs. antikamnia and 1-4 gr. sulphate of codeine, is a sedative to the respiratory centres. In the treatment of la grippe and its sequelæ its value is highly esteemed. In diseases of the respiratory organs following an attack of la grippe, pain and cough are the symptoms which especially call for something to relieve. This combination meets these symptoms, and in

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addition controls the violent movements accompanying the cough. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva. Exhibited in the grinding pains which precede and follow labor; in the uterine contractions which often lead to abortion; in the various neuralgias, and in all neuroses due to irregularities of menstruation, this combination affords immediate relief. In these last conditions, always instruct that tablets be crushed before taking.

With their March, 1907, pamphlet Battle & Co. commence the issue of a series of eighteen illustrations of dislocations, the first being bilateral dislocation of the jaw. These illustrations will complement their illustrations of long bone fractures, and the two series will make a valuable collection of the busy practitioner. Physicians who are not on their mailing list can get them free by application to Battle & Co., St. Louis.

Physicians in search of a field for practice may not know that they can find out from the Canadian Medical Exchange, conducted by Dr. Hamill, 75 Yonge St., Toronto, practically every medical practice for sale in the Dominion, as well as many places where there is no doctor and the community need one. This information is given prospective medical buyers free of any charge whatever, the only condition being that buyers must agree to hold sacredly confidential, and for their own use only, all information received from the above office. Medical vendors and vendees can secure the goal desired by having their names registered with Dr. Hamill better than by all other methods combined that they might adopt, as practically everything in the market, having merit, is in his office. It is a great convenience to buyers and sellers to thus have one central depot to supply their needs.

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through cactin in "dose enough," other indicated remedies should be added, sufficient of the cactin being continued to maintain the effect desired.

That the appreciating clinician is well served by this remedy is evidenced by the fact that many, many millions of these granules have been consumed at the hands of the profession and nothing but satisfaction expressed—an experience which has covered a full decade.

VARIABILITY OF GALENICAL PREPARATIONS OF DIGITALIS.—Dr. Frankel (*Therapie d. Gegenwart,* Jan., 1906, p. 9) has shown that several infusions of digitalis ordered at the same time from several drug stores showed the same or the following day a variation in strength of from 100 to 275 per cent. In other words, a tablespoonful of one infusion represented the same strength as 2 3-4 tablespoonfuls of another. Among the tinctures the variation in strength was still greater, the difference ranging from 100 to 400 per cent. Attention is also called to the fact that the strength of digitalis leaves varies greatly, according to the season of the year in which they are collected. —*The American Journal of Clinical Medicine,* Feb., 1907.

I WISH to thank you for your past favor in sending me free samples of Resinol Ointment and Soap. I have had perfect success in treating the various forms of eczema and erythema with these preparations. Since our great disaster I have frequent opportunities to use these handy samples.—DR. LYDIA J. WYCKOFF, San Francisco, Cal.

PNEUMONIA—The three great points in pneumonia are to relieve congestion, maintain intestinal activity and cleanliness and improve metabolism. Systemic antiseptics are also indicated. The man who uses calcium sulphide, aconitine, veratrine and digitalin in Abbott's "Defervescent compound," the sulphocarbolates and nuclein, *cures* his cases, frequently aborting them within a few days.—*Clinical Medicine.*

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Original Articles.

A CASE OF OBSCURE AND SYMPTOMLESS RENAL HEMATURIA—NEPHRECTOMY.

By J. Price Kennedy, M.D.

Surgeon to Wingham General Hospital.

Under the designation of Symptomless Hematuria Henry Fenwick describes a group of cases, partly vesical, partly renal, in which the only symptom, at least for some time, is hemorrhage.

The causes of the renal variety he enumerates as follows: 1, Malignant Disease; 2, Bright's Disease; 3, Renal Syphiloma; 4, Cardiac Disease; 5, Rare Renal Stone.

He states that in malignant disease of the kidney, either carcinoma or sarcoma, hemorrhage, in many instances, is the first and for a time the only symptom. The hemorrhage is often sudden, unexpected and profuse. The bleeding may at times cease abruptly, due to temporary corkage of the ureter with a clot. Pain, tumor, frequency of urination occur later in these cases, although the latter symptom is not common apart from the frequency induced by clot retention. The urine in the hematuria of Bright's disease varies greatly in color, from a rosy hue to a dark red. The symptomless cases due to Bright's disease, Fenwick says, form about 12 per cent. of the obscure renal hematurias he has examined. Under the head of Bright's Disease, Schede, in the *Annals of Surgery*, p.

446, Vol. XVI., 1892, records a case of uncontrollable renal hemorrhage in which nephrectomy was performed.

Hemorrhage may occur from an interstitial nephritis, which may be unilateral, affecting sometimes only localized areas of the one kidney. In a case mentioned by Nimier, p. 342, Vol. V., Von Bergmann's Surgery, only a single papilla was affected, but the bleeding continued until the kidney was removed.

Sabatier also reports operating in a case of hematuria, expecting to find stone in the kidney. The wound in the kidney bled so freely it was removed. Pathologically it showed nothing but a moderate degree of interstitial nephritis.

Elliott says, " Although unable to explain the fact adequately, clinical records show that a small patch of interstitial fibrosis may be the only microscopic change found in a kidney which has bled severely and persistently. The area of involvement may be so small as to escape the most careful search, and it is perhaps on this account that even to this day cases of " essential renal hematuria " with an unexplained pathology are reported. Possibly this might account for the hemorrhage in a case in Howard Kelly's clinic reported by Schenck in the *Medical News,* December, 1904, in which the kidney was exposed, split in two, a liberal portion removed for microscopic examination and the kidney replaced after suturing. The hematuria was cured, but no pathological condition was found.

Well authenticated cases of renal hematuria without symptoms due to stone have been reported by Fenwick and others. As a rule, however, in these cases, the hemorrhage is not profuse and in time other symptoms supervene. Senator, in Jacobsens' Surgery, p. 704, 2nd Edition, reports a case of profuse hematuria, symptomless, in which nephrectomy was performed. The kidney appeared quite normal. As she belonged to a family of bleeders, Senator thinks that this case suggests that in some instances hemophilia is due to a local defect in the walls of the vessels. Grosglik, in Von Bergmann's Surgery, p. 342, Vol. V., reports a case of hemophilia inherited from both father's and mother's families, in which patient as a child suffered from profuse epistaxis, bled easily from the gums, and later had rectal hemorrhage. After the renal hemorrhages began the others ceased. Symptomless hematuria, as far as I have been able to learn, does not occur in renal tuberculosis. The fact that these cases are symptomless increases the obscurity of their etiology, and frequently renders a diagnosis very difficult and even impossible. In an interesting article in Vol. IV. of the sixteenth series of the International Clinics, Elliott, of Chicago, says: " Renal

Hematuria of obscure origin has been recognized since the earliest days of renal surgery and has constituted a puzzling problem in which physician and surgeon alike have been interested. Obscurity in pathology at all times adds interest to clinical investigation, and this must be particularly true of a condition which is frequently revealed only in its real character at an operation undertaken for the removal of stone or the ablation of a supposedly tuberculous or otherwise diseased kidney." These cases have been classified or reported under such designations as "Renal Hematuria" (Senator, Broca, Grosglik), "Hematuria from Healthy Kidneys" (Klemperer), "Mysterious Hematuria" (Rovsing), "Renal Epistaxis," "Renal Hemophilia," "Angio-Neurotic Hematuria," "Hematuria of Unexplained Origin" (Schenck), and "Essential Renal Hematuria."

This latter term has been especially used to classify a group of cases which are free from demonstrable lesion and possess two features in common, viz., unilateral renal hematuria and an obscure pathology. The tendency is, however, Elliott maintains, to incline to the view that every such case, if carefully studied, will show some pathologic condition, usually a chronic nephritis. The nephritis, as I have said, may be confined to one kidney, and even to localized areas of the renal tissue. Nevertheless quite a number of cases of renal hematuria of unexplained origin are reported when the kidney has been incised and carefully examined, but not studied microscopically. Schenck, however, in his above-mentioned paper, reports finding only two cases in literature in which the whole kidney has been examined microscopically and found normal; the one case reported by Klemperer, the other by Schede. In chronic Bright's disease, too, when both kidneys are diseased, the hematuria, if severe in character, Elliott says, is usually unilateral and almost always without symptoms.

The patient, Miss K., aged 28, whose case I wish to present to you to-day, called at my office, September 18, 1906, bringing with her a sample of urine of a bright red color, which she handed to me and asked what it meant. Unfortunately, I could not explain to her offhand what it did mean, nor, as you will learn, was I able to explain to my own satisfaction the real cause for some time afterwards. She stated that three days previously, viz., on September 15th, upon passing urine she noticed that the urine was of a red color. She had experienced no pain or frequency in urinating, felt well in every way, and looked the picture of health. Family history was negative. No history of tuberculosis, excepting two uncles. No history of hemophilia. Pulse 70. Temperature normal.

Examination of urine showed it to be acid, sp. gr. 1022. No albumen except that to be expected from the amount of blood. No sugar. Microscopical examination showed no casts, no pus. Nothing, in fact, but a field crowded with blood corpuscles. Here was certainly a case of symptomless hematuria. No history to point to a clue and no symptom but hemorrhage. The quantity of blood was so large, apparently so sudden was the onset of the trouble, and the patient looked so well, that I became suspicious of malingering, and consequently asked the patient to call again next day and bring another sample of urine, which was practically the same as the first sample. I also had her pass urine in the office under the watchful eye of a lady medical student who was spending the summer with me. There was no doubt about the matter. The case was one of hematuria. I gave some placebo, advised rest, and waited for the hemorrhage to stop or new symptoms to arise.

From the 15th of September to the time of operation, October 24th, patient passed blood constantly when urinating. Sometimes the urine was of a bright red color, other samples were very dark, with occasional small vermicular clots. During the first two weeks some samples contained considerable clotted blood. On the 12th of October I examined the interior of the bladder with a Bransford Lewis cystoscope, but could discover nothing abnormal in the bladder. I then concluded that either kidney must be responsible for the hemorrhage, and attempted to catheterize the ureters. In this I was unsuccessful. About this time she began to complain of a slight uneasiness along the course of the left ureter. She said it was not a pain but a slight dragging or aching sensation, which was indeed so slight that I believe it would have passed practically unnoticed had it not been for repeated examinations and questionings. Thinking of the possibility of stone, I took a number of X-ray pictures. These were all negative.

On October 17th I took her to Detroit, to Dr. B. R. Schenck. He kindly catheterized the ureters for me, and discovered that the blood was coming from the left kidney, and in large quantities. I wish to mention the fact just here that Dr. Schenck is very expert in the catheterization of the ureter. He uses the open method—the Kelly method. He passed the ureteral catheter in this case in less than seven minutes.

So alarming was the hemorrhage that Dr. Schenck remarked to me, "If you don't do something quickly, your patient will die." The afternoon and evening after the catheterization the

patient suffered severe pain in the loin and along the course of the ureter, due probably to ureteral clot. The following morning I brought her home to Wingham. She was now becoming blanched and anemic in appearance. Dr. Schenck also made a culture from urine and blood of diseased kidney, and on October 24th wrote me as follows: "The culture made from urine and blood from left kidney has remained sterile. This, of course, does not rule out tuberculosis, for tubercle bacilli will not grow in this way. I can find no pus in the sediment. If any be present, it is in such small quantities that it is impossible to find it in the presence of so much blood. The albumen is about that (in quantity) to be expected from the blood. I am much interested in the case, and trust that you will not fail to let me know the outcome. Thanking you for letting me see Miss K., sincerely yours, B. R. Schenck."

In the diagnosis of this case now, four causes suggested themselves: 1, Tuberculosis (possibly); 2, Stone; 3, New growth; 4, Nephritis.

The blood is not profuse in the early history of tuberculosis. The profuse hemorrhage in kidney tuberculosis being usually associated with its later stages of ulceration. Frequency of micturition is a very common, perhaps almost constant, symptom in renal tuberculosis, and while this symptom does not necessarily precede the hematuria, it almost invariably occurs before such profuse hemorrhage sets up.

These facts led me to eliminate tuberculosis. The patient had no evidence of cardiac disease. Stone had not necessarily been excluded by the negative radiographs as one form of stone, the urates, is not always shown by the X-ray. The extreme rarity of stone as a cause of symptomless hematuria, and the facts that hemorrhage in renal calculus is not profuse, led me to conclude that my case was due to either new growth, or nephritis. The latter, Elliott says, it is usually impossible to diagnose from the urine while the hematuria lasts, and, of course, there were no other symptoms to go by. As Fenwick laid so much stress on the hematuria being profuse in malignancy, I inclined to expect a malignant growth.

October 23rd. Patient has lost nine pounds in weight since September 18th, is pale, dizzy and light-headed on attempting to walk. Pulse 68, temperature normal. On October 24th, assisted by Drs. McAsh and Redmond, Dr. J. E. Tamlyn, anaesthetist, through the oblique lumbar incision, I brought the kidney out on the loin, and examined it. The lower part of the kidney was

quite dark and congested in appearance, and also a small part of upper end. Between the fibrous capsule and kidney proper was about an ounce of blood-stained serum. I explored the kidney and its pelvis for stone, but could find none. I then concluded to split the kidney, and if nothing else were found, to unite the parts with mattress sutures. On secondary consideration, however, fearing this might not relieve the hematuria, and confident that, even if patient were able to stand it, no further operative procedure would be permitted, I removed the kidney. Operation took one hour and twenty minutes. Patient made practically an uneventful recovery.

The 24 hours previous to operation, patient voided only twelve ounces of urine, and the same quantity in the 24 hours subsequent to operation. The next 24 hours fifteen ounces were passed. The urine gradually increased in quantity, until at the end of three weeks patient was passing from twenty-five to thirty-two ounces in 24 hours. Temperature never went above 100, excepting upon evening of third day it reached 100 4-5. The nurse telephoned on the ninth day that the dressings had suddenly become soaked with blood. I removed dressings and found that a rather severe venous oozing had occurred from wound, which was controlled by packing with gauze, saturated with adrenalin solution. This oozing, however, was quite free for two or three days. I can't account for this hemorrhage so long after operation. For several days after operation there was quite a considerable amount of albumen in urine. This, however, gradually disappeared, and in four weeks' time the urine was normal, as follows: S. G. 1022. Faintly acid. No albumen. No sugar. No test made for quantity of urea. Apparently normal from the S. G. Heavy precipitate, which dissolved on heating.

Microscopically:—Amorphous urates. A few calcium oxalate crystals. No casts, pus, nor blood.

I forwarded kidney to Detroit Clinical Laboratory, and received the following report:

LABORATORY REPORT NO. 1051.

Physician—J. P. Kennedy. Patient—Miss K. Date Received—Nov. 10, 1906. Date Reported—Nov. 21, 1906. Character of Specimen—Kidney.

The kidney shows an unusual amount of fat in the pelvis, extending into the calyces, and an obscuring of the normal markings, especially of the pyramids. There is no noticeable abnor-

mality of size and the capsule strips easily. There are persistent fetal lobulations.

Microscopically, the fat tissue is seen to be merely an excess of physiological deposit and not a product of degeneration or neoplasm. The whole renal structure shows a marked protoplasmic or parenchymatous degeneration; the intensity of this degeneration varies in different areas, probably determined by the vascularity. All the tubules, and especially the convoluted tubules, are affected, while the glomeruli show a marked shrinkage of the capillary tuft, an attenuated Bowman's capsule, and within the latter a collection of parenchymatous debris. Occasionally the capillary tuft is entirely wanting and the capsular space is entirely filled with debris. The blood-vessels share to a lesser extent in the degenerative process. There are numerous tubular plugs, hyaline and granular. No interstitial change is observed, and no sign of any neoplasm anywhere. The extensive necrosis may be partly due to poor post-operative preservation, but some of it is distinctly a vital process, especially the changes in the glomeruli. This latter factor warrants a diagnosis of glomerular nephritis.

(Sgd.) P. M. Hickey, M.D.

The extensive necrosis mentioned in this report, I believe, was entirely and wholly a vital process, as the specimen was very carefully preserved.

Bergmann says nephrotomy has entirely supplanted nephrectomy in the treatment of these cases, and possibly splitting the kidney and uniting with mattress sutures, as I first thought of doing, might have been sufficient in this case, but the patient's condition had become so serious at the time of operation, and I had no means of knowing the pathological condition at the moment, and from the fact, as I have already stated, that I was assured no further operative procedure would be permitted. I adopted the radical method of freeing my patient from her diseased condition. Forchhiemer, in his recent work on treatment, page 442, reports a case in which the hematuria did not cease after nephrotomy, but in which he claims calcium chloride had an excellent effect. He does not say, however, that the case was cured. That such cases do die cannot be denied. V. Bergman says in his Surgery, p. 342, Vol. V., " that there may be an intense hemorrhagic nephritis, which affects only one kidney, the only symptom of which for a long time may be the repeated hemorrhages. The disease may prove fatal without affecting the other kidney."

Dr. West and Mr. Bowlby, in the Clinical Society's Transactions, Vol. XX., p. 147, report the case of a young girl who passed so much blood with the urine that the bladder was sounded for stone. Nothing further was done, and patient died. The autopsy revealed marked granular kidneys. It is now over six months since I operated on my patient. She has gained in flesh, looks well and is in very excellent health.

NOTES OF A CASE OF INVERSION OF THE UTERUS.

By Frederick Fenton, M.D.
Associate in Obstetrics, University of Toronto.

Mrs. K., aged 20 years, primipara, confined Sept. 28, 1906. Previous and antepartal histories unimportant. She is small and light, with thin bones and little superfluous fat. Pelvis is normal in size and shape.

Labor began about 11 a.m., Sept 27th, but pains were not very strong and were far apart till about 10 p.m.

I was notified at 1.30 a.m. (28th) at which time the membranes ruptured spontaneously. The child presented by the vertex and lay in a left occipito-anterior position. Labor was terminated about 4 a.m. (three and one-half hours after the rupture of the membranes) without forceps, chloroform being used to the obstetrical degree for the last hour.

On delivery, the membranes were found stretched over the head and face, and doubtless had much to do with the production of the inversion. On following down the uterus during the delivery of the body I was struck by a peculiar flatness of the posterior uterine wall, while the whole uterus seemed to lack tone.

About half an hour after birth the placenta was expelled, apparently in a normal manner, some pressure being made from above. As the placenta was expelled, the fundus was felt to pass from the grasp of the hand, and on examination the placenta was found to be adherent to a hard round mass which protruded from the vulva, and which proved to be the inverted fundus. The placenta was easily stripped off the fundus, and on grasping the uterus firmly there was no difficulty in controlling the hemorrhage.

The uterus was carried up into the vagina and its wall fed

back through the cervix until the fundus suddenly sprang back into its proper position.

Good contraction at once took place and was maintained. Not more than six or eight ounces of blood was lost throughout the case, and there was no shock, although the patient was not under an anesthetic at the time of inversion, nor during replacement. The puerperium was uneventful, as is shown by the accompanying chart; both fundus and temperature lines, as well as the pulse record, being satisfactory.

Traction upon the cord is the most frequent cause of inversion of the uterus, especially if the traction be applied very soon after the birth of the child, before the contraction and retraction of the uterine muscle has had time to adapt the organ to the new condition of affairs. In this case the traction upon the membranes by the advancing head was undoubtedly the starting-point, the downward traction of the placenta itself, the subsequent uterine contractions and the pressure of the external hand uniting to complete the inversion.

I have thought this case worth reporting because of the extreme rarity of the complete inversion, being the rarest of serious obstetric accidents. "Winkel had not seen a single case in 20,000 labors, nor had Braun one in 250,000. In 192,000 cases in the Rotunda, covering a period of nearly a century, only one case was reported." (Jewett.) "Beckman collected from literature 100 cases and found that 54 of them had occurred spontaneously." (Dorland.)

The mortality is variously stated at from 25 per cent. to 35 per cent.

75 Bloor Street East, Toronto.

MILK AS A CAUSATIVE FACTOR IN TYPHOID.*

By Lewis Henry Marks, M.D., Poughkeepsie, N.Y.

Milk is undoubtedly one of the causes of typhoid fever epidemics. All of our standard text-books state that it is a carrier and excellent culture medium. The bacilli of the disease are transmitted to the milk in various ways: by cans washed in infected water, by attendants who are in attendance on typhoid

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patients, by milk exposed to flies and dust laden with typhoid germs.

Dr. Ernest J. Lederle, president of the New York Board of Health, in a notice to milk dealers, advised that the rooms in which milk is sold should not communicate with one which is used for living or sleeping purposes, because,—

1st. Milk readily absorbs odors from the surrounding atmosphere and is thus rendered more or less unsuitable for use.

2nd. Milk furnishes an excellent medium for the growth of many kinds of disease-producing germs, and through it may be readily transmitted such diseases as tuberculosis, typhoid fever, scarlet fever, influenza, dysentery and probably some others.

If any person sick of any one of these diseases is present in a living or sleeping room, unless the greatest care is used, and even in spite of this, the germs producing these diseases may be conveyed through the atmosphere or by the hands or clothing of those in contact with the sick, and thus the milk becomes contaminated.

One of the characteristics of a typhoid epidemic caused by milk is the rapidity of its dissemination. Specific instances of epidemics traced to milk do not appear in our text-books, but rather are to be found in the reports of wide-awake health officers. Dr. Lederle reports a series of eighty-six cases occurring in one of the New York boroughs which were traced to one case of typhoid in the family of a milkman who had supplied all the families of those taken sick. The well was found contaminated, and ordinary sanitary precautions had been neglected.

Dr. Ernest Wende, of Buffalo, in a paper on "City Milk Routes and Their Relation to Infectious Diseases," which was presented to the Section on State Medicine at the twentieth meeting of the American Medical Association, held at Columbus, Ohio, 1899, reports three epidemics. They are interesting and instructive, hence are reported:

"On September 4, 1894, we were assured by the records of the register that nineteen cases of typhoid fever had developed with wonderful rapidity in families served by a milkman living in a sparsely settled section in the northern part of the city. The Health Department forthwith instituted an investigation, which showed the startling result that the wife of the milkman, surrounded by unfavorable conditions, was ill with the fever, however, on the borderland of recovery. She was still being nursed and cared for by the husband, who likewise was handling the milk and washing the cans in a most objectionable manner,

with water procured from an old cistern that had, during the preceding year, been the subject of several sanitary complaints. Another powerful factor that made the transmission of the disease, through the medium of the milk, eminently capable, was the fact that the patient was not isolated, but cooped up in a small, stuffy chamber joining the kitchen, in direct communication with the milkroom. It is hardly necessary to state that the sale of milk was interdicted, the cistern ordered abandoned, disinfected and filled, and everything pertaining to the dairy and the premises in general placed in a sanitary condition. By this and other procedures the spread of the disease was checked, no further case occurring on the route.

"On August 21, 1895, the Department again, through the intervention of the register, discovered eighteen cases of typhoid fever intimately associated with the milk route of a dairyman located on the outskirts of the city. An inquiry into the causes and circumstances of the outbreak revealed that his premises were not what they should be by reason of defective drainage and a badly constructed, ill-ventilated and unclean milkhouse, conditions, as might be expected, most favorable for the reception and multiplication of the typhoid bacillus. The peculiar interest connected with these cases was that the wife of an employee had propagated the infection that had contaminated the milk through the agency of her husband, who, at night, not only acted as nurse but fulfilled all the other necessary household duties, and who, during the day, handled and delivered the needed product to the confiding customers, without changing his clothing for days, or taking any precaution whatever. The sick wife was immediately removed to the hospital and the unsanitary conditions so promptly changed that, by August 30, just nine days after the discovery of the first, no further cases were reported.

"Again, on March 9, 1896, the register indicated the existence of fourteen patients affected with typhoid, on the route of a milkman residing in the western portion of the city. Here we acquired the information that the milkroom was in the rear of the first floor of the building which he occupied. Several months previous, a case of typhoid developed on the floor above, in a separate family, and ran its full course. These cases undoubtedly arose in consequence of the unsanitary conditions prevalent in and about the building, and for like reason the contagion remained active until finding expression in the dairyman's

route. A quick subsidence of the epidemic followed the suppression of the milk, thorough cleansing and disinfecton."

The epdemic which occurred at Williamstown, Mass., was found by its investigation to have been caused by infected cream eaten with breakfast food.

Some of the typhoid which we have had in Poughkeepsie may have been caused by infected milk, for our system of inspection is not yet perfected nor are our dealers pointed out as models of cleanliness, therefore our milk should be taken into consideration when many cases develop. We face the possibility of an epidemic from infected milk here as do all places where the supply comes from so many sources.

Another reason is because some of our fever cases are not traced, because they do not have the official stamp—that is, do not respond to the Widal test or the diazo reaction during the first week. It seems to me that cases which do not respond to the Widal test or the diazo reaction, yet present the clinical signs, should be reported and investigated for safety's sake at least.

While the majority of the cases of typhoid respond during the first week to the Widal test, there are cases in which the reaction is delayed or occasionally absent, therefore a negative result of the test does not exclude the diagnose of typhoid. (Dr. Welch, *Journal of the American Medical Association,* August 14, 1897.)

The diazo reaction is also open to criticism. Some cases are not subjected to tests, hence are not accepted.

Where two or three cases of typhoid are found along the route of a certain dealer, his place should be inspected, as should the homes of all those who deliver milk to him for distribution.

All physicians should co-operate with the Health Officer and report promptly all cases of typhoid. In this way the disease is not likely to obtain a very great foothold or make much progress.

The milk committee of this society, by its inspections of the city supply and by its demonstrations and instructions to dealers, are doing a good work for the city, by lessening the chances for infection by the milk route, and consequently should receive our hearty support and endorsement.

PSYCHOPATHA IN GENERAL HOSPITALS.

By Ernest A. Hall, M.D., Victoria, B.C.

"The Provincial (Ontario) Government has decided upon a step in regard to the treatment of acute cases of mental diseases which will mark a most radical departure from the systems now in vogue in any part of the American continent. The development which is expected to follow the initial step will have a most important bearing on the treatment of the insane throughout the Province, and the future of the asylums, or as they are now becoming named, Hospitals for the Insane. The steps referred to will, the *Globe* understands, be indicated in an item in the supplementary estimates, which will be introduced in the House this afternoon or to-morrow, for a psychiatic clinic to be established in connection with the new Toronto General Hospital. The item will be a preliminary one for plans, etc. It is intended that the clinic shall occupy a separate building in connection with the new hospital, with accommodation for 100 patients, and equipped in the most modern and approved manner for the treatment of the insane. The building, equipment, and the system of treating patients will, in fact, be modelled on that of Munich, Germany, established some years ago, and which has been followed by wonderfully successful advanced treatment, throughout the Kaiser's kingdom, of cases of acute insanity.

Reports of the cases at the hospital, the treatment and the results attained will be sent to the heads of the asylums and the medical staffs throughout the Province, with the purpose of aiding them in their work. Eventually psychiatric clinics will be established at other centres throughout the Province. It has been the experience in Germany that a considerable proportion of the patients so treated make absolute recoveries, and that the saving in the expense of caring for them in asylums, as well as the saving resulting from the general knowledge gained in regard to treatment of the insane, is very large."

The above cutting from a Toronto paper conveys information exceedingly gratifying to those who have endeavored to treat these unfortunate cases, either in private or in public hospitals. Ontario is to be congratulated upon this marked advanced step in the treating of this class of invalids. If the statistics of Hobbs, of Guelph, and those of the writer can be accepted as

an indication of the actual condition existing among the female insane population, fully seventy-five per cent. of the insane women in Ontario and British Columbia present sufficient well-marked and palpable physical conditions to make them eligible for treatment in this new hospital; and, if our results are what we claim, through this institution there may be given the opportunity of from twenty to twenty-five per cent. of the female insane population being returned to their homes and families. Not only is that hope offered for many of the insane, but many more who are losing hold upon themselves and gradually slipping into mental chaos may be rescued and restored to normal mentality. Such cases, so well described by the able superintendent of the Royal Asylum, Edinburgh, in the following extract, from whose ranks the so-called incurables are recruited, may have the olive branch extended to them.

"Long before such mental symptoms appear as constitute 'mental disease,' we often see subtle mental changes, such as changed emotional states, 'deadness' of feeling, hyperesthetic emotional states, morbid anxieties, accentuations of natural temperament, painfully conscious "nervousness," irritabilities, inability to fix the attention continuously upon work, loss of energy, stubbornness, antipathies, mental automatisms, morbid suspiciousness and the beginning of delusions of the nature of which the patient is then conscious."

Here we have a composite symptom portraiture of a large group of cases that come under the care of the general practitioner, cases which are frequently misunderstood and as often neglected, which should be transferred to the psychopathic department, and should give as great a percentage of recoveries as usually obtain in typhoid fever.

During the last eight years one hundred and thirty-six cases of insanity in women have come under my observation. The last case I will give brief notes of, as another that would properly come within the scope of this proposed department.

Mrs. H., age 32. Married seven years, never pregnant, family history negative. Complained of pain in left ovarian region. Had been treated for "tuberculosis of bowels and womb trouble." Anemic. Constipated.

Alternate spells of hysteria and melancholia. Cranky with everybody until, as stated by her husband, no one could live with her. After an outburst of hysteria she would be sick for a few days. Was practically incapacitated from managing her house. After curetting and removal of an ovarian cyst as large as a

navel orange she has been physically improved and mentally transformed, the only trace of former mental trouble being slight depression at rare intervals.

We are at last entering upon a period of enlightenment and intelligent treatment of the insane, but we must remember that the arena of true progressive medicine must be more and more that of prevention. The highest aim of the profession should be that of teaching nature's laws and an endeavor to "justify the ways of God to man." When we have arisen to this plane, and have developed sufficient courage to speak boldly upon the effects of alcohol, vice and venereal disease relative to this phase of degeneracy, we will be dealing with some of the most potent factors, especially in the male, of mental disease; but so long as traffic in vice for a consideration, whether in direct license fees through the municipality, or in dividends from companies, or in cheap groceries from the firm that sells poison for immense profits that it may sell food at cost or at a lower rate than a respectable firm can afford to sell it, so long as we decide to reap financial rewards through the debauchery and degeneration of humanity, just so long shall we have to pay for the support of prisons and hospitals.

Our beloved Osler, in his farewell address at Johns Hopkins, speaking of insanity, said: "The saddest chapter in the history of disease—insanity—probably the greatest curse of civilized life."

Pasteur stated many years ago, when bacteriology was in its infancy, that it was within the power of man to eradicate contagious disease. We make bold to state that it is within the same power to eradicate insanity; and while we welcome every advance of methods and conveniences of treatment, the conquest has but begun and must continue until the drug intoxications, including cocaine, opium, alcohol and tar preparations, and venereal diseases, are under control, as well as the local lacerations, inflammations, new growths and septic conditions whose treatment have yielded such satisfactory results at the hands of Dr. Hobbs and myself.

The silver-fork deformity is by no means necessary to the diagnosis of Colles' fracture.

Before putting an unconscious patient to bed, the hot water bags should be removed or sufficiently covered to prevent the occurrence of a burn.—*American Journal of Surgery.*

Clinical Department.

Foreign Bodies in the Urethra. By John J. Conner, M.D., Pana, Illinois, in *Am. Jour. Dermatology.*

"From early infancy to drivelling old age there is a tendency to manipulate the external organs of generation. This leads to many misadventures, and the physician is not infrequently called upon to remove foreign bodies from the urethra. Examples of inserted beads, pebbles, sticks, etc., are numerous in childhood. Think of a lad actually sliding a watch-chain down his urethra! After puberty the tendency becomes more marked as the sexual desire increases. A few years later we find the morbid recluse, especially among the shepherds and monks of former centuries, resorting to intra-urethral stimulation with sticks or other hard substances to arouse the overexhausted functions, waning from excessive masturbation of venery. Yielding himself to his vile erotic feelings, the instrument often slips from his fingers and is lost in the canal."—Dr. De Forrest Willard, in *Medical and Surgical Reporter.*

All mishaps of losing foreign bodies in the urethra are not due to vile manipulations of the external organs of generation, but many are the result of catheterization of patients, either by themselves or the physician; the catheter, sound or other instrument may become broken in the attempt to withdraw the urine from the bladder and is retracted deeply into the urethra or even into the bladder beyond the reach of the fingers and must be removed by instrumentation.

The publication of this article, I hope, will bring out some new and efficient mode of removing foreign bodies from the urethra. Of course, if the urethra is large and the foreign body is smooth and not sharp pointed it may often be grasped by a suitable and long pair of forceps, but if the canal is small and tortuous, or maybe swollen and inflamed, the attempt will not infrequently be attended with much suffering and bleeding on the part of the patient and much worry and disappointment on the part of the physician.

De Forrest Willard recommends the use of the litholapaxy excavator with large, straight, open-ended canula. He recommends for this purpose the largest size canula that can be introduced into the urethra, nicking the meatus if necessary to gain

entrance by the proper size. Unfortunately for the majority of physicians, who are called upon to remove foreign bodies from the urethræ of patients, they will not be prepared with a litholapaxy excavator, and they will have to use some more common method, often resorting to the knife and removing the object by an external wound.

In children the small round bodies usually slipped into the urethra will be found in the anterior portion of the canal, while the longer instruments introduced at all ages will soon be found in the membranous portion of the tube or in the bladder. A long foreign body usually finds its way into the deep urethra or bladder in a few hours; rarely, two or more days are required. In exceptionally rare cases, rounded bodies remain a long time in the urethra, the urine, flowing in a tortuous course around them, and, becoming incrusted, a pocket ultimately forms, or suppuration ensues. Many instances of very large urethral calculi are recorded.

How can the recedence of a foreign body into the deep urethra or bladder be explained? What is the *modus operandi* of the muscular action of a urethra swallowing a piece of catheter, stick or other object? There have been many theories to explain the recedence of foreign bodies in the urethra. It does not seem strange to De Forrest Willard, "that the compressor muscular fibres of the urethra, when stimulated to action by a body applied in front, should reverse their usual action as easily as do the muscles of the pharynx, intestines, etc. This action of swallowing a hard substance is aided by the erection of the penis, which in its subsidence (should the anterior end of the object become engaged), drives it farther and farther back with each successive engorgement. Tending to the same unfortunate end are the manipulations of the part, in the patient's endeavor to extract the offending body. When possible, no manipulations should be attempted for extraction without the body being firmly secured from further retraction."

I wish to report the following case:

A Hat Pin Four and Seven-Eighths Inches Long in the Urethra.

"On the 28th of September, 1906, at 9.30 p.m. I was called on at my office by Mr. X., a man about 60 years old, married and a grandfather, who I noticed as he came in must be in great pain and distress, as he was holding both hands low down upon the abdomen and was walking very much stooped over, and

without taking the proffered chair said, 'Doctor, I have acted a d—n fool, I guess. I have run a hat pin into my urethra. Can you take it out for me?' I assured him that I could, and after asking me to hold his name in confidence, he got upon the table as I desired him, and took down his pants. The underclothing was saturated with blood, as was also a cloth that he had placed to catch the same. He said, 'You can feel it here,' placing the end of the finger on the lower part of the penis. The end of some sharp object could be felt in the anterior portion of the perineum, a little to the right of the median line. Without giving an anesthetic or making application of cocaine I seized the object with a small pair of alligator forceps and made a careful traction, but the instrument slipped off. I again applied the forceps, but found that the object had slipped farther down into the urethra. I found it was not possible to pull out the object, for it had imbedded itself in the urethral mucous membrane, and the more I pulled, of course, the farther it projected through the urethral floor. I said to the patient that it was not possible to get in out in this manner, and it would be necessary to make an external wound and deliver it that way. He said, 'All right,' and I handed over to him the forceps that he might not allow the object to recede still farther into the bladder. I made an incision one-half inch long over the point of the object and grasped the end of it with another forceps. I had difficulty in drawing the object out, as it seemed to be very firmly held by some cause, and I soon found that the patient was still holding the alligator forceps in a tight grasp, and it was necessary to explain to him that he must now let go his end of it. He did so, and I soon drew out the shaft of the object, but found that I must enlarge the opening in order to let the bead end through. The bead on the end of the hat pin was large enough to just pass through a No. 28 French catheter hole in one of the cards the instrument dealers send out to patrons.

Immediately after getting off of the table he voided about two ounces of urine in which were a few small clots of blood. There had been so much laceration of the urethra that I deemed it prudent not to close the external wound. As said above, no anesthetic was given, nor was any preparation of the patient made in the way of rendering the perineum clean or aseptic.

September 29th, 10 a.m., patient returns, and reports no trouble in passing urine. The wound bled considerable in the night. He had been in such perturbation of mind the night before that I had not asked him the reason of introducing the

hat pin, but at this visit he said that the reason of introducing it was due to hindrance in voiding urine and he had passed it to open up the passage. He said that he had informed his wife he had consulted me "to get a stone cut out of his bladder." He also informed me at this visit that in introducing the hat pin he had held it firmly near the point, and of a sudden the point broke off and the other end had slipped into the deep urethra. I now deemed it safe and prudent to close the external wound, and it was done by inserting one silk stitch. The perineum was cleansed with tap water and soap, supplemented with peroxide of hydrogen, covered with an antiseptic powder and protected by gauze and absorbent cotton.

September 30th, 7 p.m., the external wound is well closed. The scrotum is *black,* but there is no swelling or crepitation beneath the skin. The discoloration is deepest on the *left* side of the scrotum and stops abruptly at the *base* of the scrotum. There is also a slight discoloration on median line of perineum running parallel with the external wound. The patient passed without difficulty one and a half ounces of amber-colored urine, urinalysis showing an acid reaction, sp. gr. 1.026, no albumen, no sugar, but on cooling there is an abundant deposit of earthy phosphates.

October, 1 p.m., patient has no difficulty in urinating, but there is bleeding after each act of voiding the urine; there is also bleeding during the night while asleep. No bleeding externally. The external wound is about healed. The scrotum is quite black, but it has begun to clear up. He has been bathing the scrotum with hot water at my request, and last night spts. camphor was applied at my suggestion, but the patient says he thinks the camphor is not so good as the hot water. The danger of stricture was explained to the patient, and the passage of bougies recommended to avoid that. He was afraid of bleeding and would not consent.

October 2, 7 p.m. Patient improving. The scrotum is now about the color of deep "cherry red;" the bleeding from the urethra much less; no difficulty in voiding the urine. I again advised the passage of the bougies to keep the urethra patulous and to prevent the formation of a stricture. It was explained to him that the bougie would in fact be a preventive of bleeding as it would press down the lacerated edges and cause them to more quickly and accurately unite than if left alone. He now consented. French bougies, numbers 18, 20, 22 and 24 were successively passed, and but very little blood was seen on the withdrawal of the bulbs.

On further conversation with the patient regarding the introduction of the hat pin into the urethra, he said that he had not had sexual intercourse for twenty years. I had had my suspicions of masturbation as the reason of the passage of the hat pin, and this confession of his sexual continence for so long a time tends to confirm me in that suspicion.

October 4, 8 p.m., patient doing well, French bougies numbers 22, 24, 26 and 28 passed.

October 8, 8 p.m., patient improving right along. The scrotum is clearing up in good shape. The wound has healed almost perfectly and the stitch removed. Bougies numbers 22, 24, 26 and 28 passed. The site of perineal wound thoroughly dusted with talcum powder.

The patient has not returned since, but I frequently see him on the street and he appears to be all right.

Foreign Body in Right Bronchus Removed by Aid of Bronchoscope. By Secord H. Large, M.D., Cleveland, Ohio, in *The Cleveland Medical Journal.*

Mr. J. W. W., of Mansfield, age 28, was kindly referred to me by Dr. C. A. Hamann, with the following history:

On September 17, 1906, while driving along the country road, he was eating peanuts. The horse gave a sudden jump, causing him to take a deep inspiration, while he had part of a peanut in his mouth. He felt something go into the trachea and was seized with a violent attack of coughing. He immediately consulted his family physician, who sent him to Cleveland. Dr. Hamann diagnosed a foreign body in right bronchus.

I saw him on the 19th, two days later, and he was then having considerable pain in the right lung, aggravated on inspiration. His temperature was 99 4-5 degrees, pulse 84.

The larynx and upper part of the trachea were thoroughly cocainized with a 20 per cent. solution. He was then placed on a low stool, the head thrown well backwards, and the tube inserted. The first tube used was too short to bring the foreign body into view. By using the longest tube I had, which is 13 1-2 inches long, I was just able to see the foreign body. It was firmly lodged in the bronchus and was enveloped in thick mucus. On grasping it with long forceps it broke off and I had to remove it in four pieces. After its removal the pain imme-

diately disappeared. After swabbing out the mucus I made careful search for any abrasion, but was unable to find any. Iodoform in glycerine was instilled and the patient sent to Charity Hospital.

Next morning he came to my office and insisted upon going home. He said he had no pain but was feeling a little weak.

His family physician, Dr. Yoder, informs me that when he saw him the day after his return home, which would be September 21st, pneumonia had developed in the right lung. The patient is now entirely well.

As to what caused the pneumonia, I am not in a position to say, but I think that the foreign body was the exciting cause. During the entire operation no blood was seen and the patient had absolutely no pain. This is the first case of pneumonia I have had or seen, following the removal of a foreign body.

If these cases could be seen immediately after the accident, I feel confident that the danger of pneumonia following is very slight.

THE surgeon should not wait for redness before making a diagnosis of palmar abscess. Owing to the density of the fascial structures this sign is often lacking in the early stages.

THE radiography of the elbow of a child shows shadows of humerus epiphyses. One inexperienced with X-ray plates is very apt to mistake one or more of these for fractures. When examining the skiagraph of a child's elbow suspected of fracture or dislocation, it is, therefore, important to have the normal picture in mind, or better yet, in hand, for comparison.

AMPUTATION of a finger gangrenous as the result of carbolic acid application should not be performed until the line of demarcation is well established. The necrosis may be superficial and in such an instance the finger may be saved by means of skin graft.

IN "Ludwig's angina," the cardinal principle in the treatment is extensive incision. An incision that passes no matter how deep into the substance of the submaxillary gland proper, will prove of little avail unless the tissues within the wound have been broken up until they are practically pulpy.—*American Journal of Surgery.*

Society Reports.

PROPOSED PROGRAMME OF THE ONTARIO MEDICAL ASSOCIATION, MAY 28, 29, 30, 1907.

TUESDAY, MAY 28.—MORNING SESSION.

Medical Section.

1. Leucocytosis.—D. A. Graham, Toronto General Hospital.
2. Paper, a Resumé of the Development of Clinical Psychology.—J. G. Fitzgerald, Toronto Asylum.
3. Perforation of the Gall Bladder in Typhoid Fever.—E. Brandon, North Bay.
4. Feeding of Typhoid Patients.—J. A. Oille, Byng Inlet, and George E. Smith, Toronto.
5. The Care of the Degenerate, with Suggestions as to the Prevention of the Propagation of the Species.—R. W. Bruce Smith, Toronto.

Surgical Section.

Clinic at the Hospital for Sick Children. Cases will be presented by Surgeons on the Staff.

TUESDAY AFTERNOON.—GENERAL SESSION.

Symposium—The Profession in Relation to the Public.

1. "The Medico-Legal Aspects."—G. Silverthorn, Toronto. Discussion to be led by D. D. McTaggart, Montreal, and two others, names to be announced later.
2. "The Public Health Aspects."—J. W. S. McCullough, Alliston. Discussion to be led by C. A. Hodgetts, Toronto; R. Raikes, Midland; and W. R. Hall, Chatham.
3. "Ideals for Asylum Work in Ontario."—C. K. Clarke, Toronto. Discussion to be led by N. H. Beemer, Mimico; J. Russell, Hamilton; T. J. W. Burgess, Montreal, and W. N. Barnhart, New York.
4. "The Infection of Drinking Water."—J. A. Amyot, Toronto. Discussion to be led by T. A. Starkey, Montreal, and W. T. Connell, Kingston.

EVENING SESSION.

To be devoted to entertainment. A Smoking Concert will be given in St. George's Hall, to which all members are invited.

WEDNESDAY, MAY 29.—MORNING SESSION.

Medical Section.

1. Pathology, Etiology and Treatment of Neurasthenia.—S. H. McCoy, St. Catharines.

2. Modern Methods of Anesthesia.—S. Johnston, Toronto.

3. Allopathic Doses of Drugs.—T. O. T. Smellie, Fort William.

4. Desirability of Establishing an Institution to which Inebriates may be Committed by Legal Process.—Edward Ryan, Kingston. Discussion to be led by W. C. Barber, Kingston, and A. T. Hobbs, Guelph.

Surgical Section.

Symposium on the Treatment of Fractures:

(*a*) "Fractures of the Skull."—D. E. Mundell, Kingston.

(*b*) "Fractures near the Elbow."

(*c*) "Fractures near the Wrist and Ankle."—A. W. Stinson, Brighton.

(*d*) "Fractures of the Femur."—W. E. Gallie, Toronto.

2. Report of a Case of Tetanus with Cure by Amputation after Three Months' Treatment.—T. W. H. Young, Peterboro'.

3. Paper, Title to be sent.—A. E. McColl, Belleville.

4. Closure of the Incision in Abdominal Section.—N. A. Powell, Toronto. Discussion led by E. Meek, London.

WEDNESDAY AFTERNOON.—GENERAL SESSION.

1. Presidential Address: "The Operative Treatment of Goitre"—a Second Report.—G. A. Bingham, Toronto.

2. Address in Surgery: "Clinical and Experimental Observations on the Direct Transfusion of Blood."—Geo. W. Crile, Cleveland. Discussion led by D. E. Mundell, Kingston.

EVENING SESSION.

Annual Dinner, the particulars of which will be announced later.

THURSDAY, MAY 30.—MORNING SESSION.

Medical Section.

1. Alcohol and Life Insurance.—T. F. McMahon, Toronto.
2. Therapeutic Inoculation and the Opsonins.—G. W. Ross, London, England.
3. X-Ray in Medical Diagnosis.—S. Cummings, Hamilton.
4. Cerebrasthenia, or Brain Exhaustion.—D. Campbell Meyers, Deer Park.
5. Necessity for Separate Isolation Hospitals for the Minor Infectious Diseases.—J. J. Cassidy. Discussion to be led by Walter F. Langrill, Hamilton General Hospital, and J. N. E. Brown, Toronto General Hospital.

Surgical Section.

1. The Bier Treatment. S. H. Westman, Toronto.
2. Intestinal Obstruction.—Ingersoll Olmsted, Hamilton. Discussion led by W. G. Anglin, Kingston.
3. Mastoiditis with its Complications.—Gilbert Royce, Ottawa.
4. The Operative Treatment of Tuberculous Arthritis.—A. Primrose, Toronto. Discussion led by A. H. Perfect, Toronto Junction.
5. Diagnosis of Malignant Tumors. (*a*) Clinical Aspect—William Hackney, Ottawa; (*b*) Pathological Aspect—E. Stanley Ryerson, Toronto.

AMERICAN MEDICAL EDITORS' ASSOCIATION.

The Thirty-eighth Annual Meeting of this Association will be held at Atlantic City on Saturday, June 1st, and Monday, June 3rd, with headquarters at the Marlborough-Blenheim Hotel. This active Association now numbers nearly 150 members, with many applications in hand for action at the coming meeting. An interesting programme has been prepared, and the following are among the papers to be presented:

President's Address—The Future of Medical Journalism. By Jas. Evelyn Pilcher, M.D., Ph.D., LL.D.

Shortcomings of Physiology, The Chief Obstacle to Medical Progress, The Need of Editorial Intervention in Such Questions. By C. E. de M. Sajous, M.D., Phila., Pa.

How Can We Make Medical Journalism Better? (*a*) For

Our Readers. (*b*) For Our Advertisers. (*c*) For Ourselves. By W. C. Abbott, M.D., Chicago, Ill.

A Word or Two from an Ex-Journalist. By Samuel W. Kelley, M.D., Cleveland, Ohio.

The First Medical Journals. By O. F. Ball, M.D., St. Louis, Mo.

The Psychology of Medical Journals from the Reader's Standpoint. By T. D. Crothers, M.D., Hartford, Ct.

Further Reflection on the Official *versus* Independent Medical Journals, One Year's History. By Wm. J. Robinson, M.D., N. Y. City.

Journalistic Suggestions from a Semi-Disinterested Standpoint. By Wm. Porter, M.D., St. Louis, Mo.

The Situation. By C. F. Taylor, M.D., Phila., Pa.

Some Aspects of Medical Journalism. By W. F. Waugh, M.D., Chicago, Ill.

The Neglect of American Mineral Springs and Climatic Resorts by Our Medical Press. By G. T. Palmer, M.D., Springfield, Ill.

A Few Feeble Remarks. By W. A. Young, M.D., Toronto, Ont.

The American Medical Editors' Association, Past, Present and Future. By Joseph MacDonald, Jr., M.D., N. Y. City.

On account of the largely increased membership of this Association, it is anticipated that the coming meeting will exceed any prior meeting in point of attendance.

The annual Editors' Banquet, which is always the social event of the week, will be held at the Marlborough-Blenheim Hotel on Monday evening, June 3rd.

Carcinoma of the prostate often does not recur for some time; meanwhile the patient may look surprisingly well. This should not beguile the surgeon into a too hopeful prognosis.

If a bubo shows no sign of disappearing under wet dressings, ice bags, etc., and evidences of suppuration are developing, it is better to make a clean dissection and excise the gland without opening it than to incise and drain.

All swellings of the lower jaw accompanied by discharging fistula, especially multiple fistulæ, should be looked upon with the suspicion of actinomycosis until proven to be otherwise.—*American Journal of Surgery.*

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

EXECUTIVE.

President—R. W. POWELL, M.D., Ottawa.
Vice-President—J. O. CAMARIND, M.D., Sherbrooke.
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NOVA SCOTIA—John Stewart, Halifax; J. W. T. Patton, Truro; H. Kendall, Sydney.

PRINCE EDWARD ISLAND—S. R. Jenkins, Charlottetown.

MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

EDITORS:

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GEORGE ELLIOTT, M.D.

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COMMENT FROM MONTH TO MONTH.

The use of alcoholic beverages in disease and with moderation in health is endorsed by the following well-known and eminent medical men of Great Britain in the *Lancet:* J. McCall Anderson, Alfred G. Barrs, William H. Bennett, James Crichton-Browne, W. E. Dixon, Dyce Duckworth, Thomas R. Fraser, T. B. Glynn, W. R. Gowers, W. D. Halliburton, Jonathan Hutchinson, Robert Hutchinson, Edmund Owen, P. H. Pye-Smith, Frederick T. Roberts, and Edgcombe Venning. Some of these names belong to men who are in the very front rank in medicine, surgery, psychiatrics and physiology. They place the matter in this way before the medical profession: "In view of the statements frequently made as to present medical opinion regarding alcohol and alcoholic beverages, we, the undersigned (the above-mentioned) think it desirable to issue the following short statement on the subject—a statement which, we believe, represents the opinions of the leading clinical teachers as well as of the great majority of medical practitioners.

"Recognizing that, in prescribing alcohol, the requirements of the individual must be the governing rule, we are convinced of the correctness of the opinion, so long and generally held, that in disease alcohol is a rapid and trustworthy restorative. In many cases it may be truly described as life-preserving, owing to its power to sustain cardiac and nervous energy, while protecting the wasting nitrogenous tissues.

"As an article of diet we hold that the universal belief of civilized mankind that the moderate use of alcoholic beverages is, for adults, usually beneficial, is amply justified.

"We deplore the evils arising from the abuse of alcoholic beverages, but it is obvious that there is nothing, however beneficial, which does not by excess become injurious."

This is a very important pronouncement, and subscribed to by such leaders in the profession as above, carries a great deal of weight with it. And there is abundance of proof in every-day life that the man who is even a total abstainer in alcoholic beverages, but an intemperate feeder, does not resist disease one whit better than he who practices moderation in all things all his life. It is the *abuse* of alcoholic beverages, as of other things, which tells against the human economy; and one should counsel moderation in all things.

Education in Canada being controlled by the provincial govments, our leading provinces should send delegates to the forthcoming second International Congress of School Hygiene, at London, England, in August. Those in charge of the education of our school children, particularly in this province of Ontario, which prides itself so much upon its common school education, cannot much longer ignore the growing importance which is everywhere being given to the care of the health of infants and school children, over whose little lives for the greater part of the day they have control. The Hon. the Minister of Education, in this province, himself a medical man, cannot have failed to have noted what a vital interest there is being manifested n the subject of the medical inspection of schools in the United States, in England and on the Continent. Nor can he be unmindful of the fact that great educationists, as even distinguished

members of his own profession, are taking a deep and earnest interest in this subject. THE DOMINION MEDICAL MONTHLY, therefore, urges the importance of Ontario being represented at this conference by a representative who has taken some active interest and done some active work in behalf of the betterment of the condition of school life and health amongst our school population.

The "White Line" of Sergent (1903) is a phenomenon known to and considered by French clinicians as valuable in the diagnosis of disease of the suprarenal body. It is the converse of the *tache cerebrale*. It is produced in the same manner. When the finger-nail is scraped rapidly over the patient's abdomen, this white line appears in from thirty to sixty seconds. It lasts from two to five minutes. It is not confined to conditions affecting the suprarenals alone, but can be brought out as well in specific fevers, septicemia, influenza, poisoning by bichloride of mercury, and in exhaustion from overexertion. The "white line" is probably due mechanically to reflex spasm of the capillaries. Low vascular tension is present in the above-mentioned conditions.

Grocco's Sign in the diagnosis of pleural effusion was advocated by Grocco, of Florence, in 1902. It consists of a paravertebral triangle of dulness on the opposite side to the effusion. With the patient in the sitting posture, percussing downwards on the healthy side, he thus defined a paravertebral triangle of dulness. This triangle, he asserts, can be obtained by percussing, two, three or more centimetres from the spine at the lower border of the thoracic resonance. This is the base of the triangle. The spines of the vertebræ represent another side, and a line upward and obliquely inward, the other. The sign is of value in distinguishing effusion from pulmonary consolidation; and it is one which has been confirmed by many observers. Thayer and Fabyan, in the *American Journal of the Medical Sciences* for January, record that in thirty out of thirty-two cases of pleural effusion they clearly demonstrated a paravertebral triangle of dulness on the opposite side.

Pathology of prehistoric man is an unusual and entertaining, though it be not a practical, subject. For six years, Dr. J. C. Reisner, of the University of California, has been employed in prosecuting excavations for antiquities for a museum the university is about to establish. In the hundreds of cases now being unpacked at the university, and which have been brought from Egypt, where their contents had been deposited 7,000 years antedating the Christian era, are some Coptic mummies, which will, no doubt, prove of interest to the medical profession. It is said the skeletons found were in perfect condition; that they furnish splendid anatomical material for finding out the racial character of the prehistoric people; that the contents of the intestines were so well preserved that even the food and medicines taken could readily be determined; that the diagnosis of the disease causing the death of the person could be determined; and that it could be determined that some had had gall-stones, some kidney disease, whilst others had had diseases of bones. This was 9,000 years ago. These mummies were preserved in salt and were further protected in their sepulture by matting made from halfa grass and woven reeds of the same plant. Thus did the Egyptians conceive the most notable way of integral conservation; for being afraid of fire, but not as a deity, they by precious embalments, and depositure in dry earths, made their remains mummies.

Cremation of human bodies, so far as is known, is only practiced in one place in Canada,—Montreal. Since the Macdonald Crematorium was established in Montreal in 1904, up to the 2nd of April, 1906, thirty-three bodies had been cremated. From the latter date until the end of February, 1907, nineteen more were subjected to the same process of hydriotaphia. Prior to the establishment, the Mount Royal Cemetery Company, of Montreal, had a charter to perform cremation. Their cremations numbered twelve, so that all told up to the end of February, 1907, there had been sixty-four cremations in Canada.

The treatment of eclampsia is ever an important subject for discussion at medical societies. In it all have their experiences. It is now well established to be an autointoxication affecting pregnant women. The exact cause, however, of the condition is yet obscure. Albumen is present in from 85 to 90 per cent. of the cases. This, then, is a very valuable premonitory symptom. In the cases in which albumen is absent, the constitutional symptoms precede the presence of albumen in the urine. Hirst, in a practical paper in a recent number of the *Therapeutic Gazette,* writes of treatment after having observed 86 cases of eclampsia and 278 of albuminuria. He classifies the different forms of treatment of the attacks under the following heads: Anesthetics, methods of reducing blood pressure, morphine, chloral, pilocarpine, thyroid extract, catharsis, diaphoresis, hypodermoclysis, and forcible delivery. The only anesthetic to be considered is chloroform, as ether is a marked irritant to the kidneys. It should be used when the premonitory signs of a convulsion appear, as a preventive of the attack. Morphine has this objection, that one does not always know whether you have a case of interstitial or parenchymatous nephritis to deal with. In the latter condition it is well borne; in the former not at all tolerated. If it is used, at least 1-2 to 3-4 grain should be employed. Pilocarpine is dangerous. If chloral, which is used extensively in the large European clinics, be employed, it should be given by enema and in doses of 30 to 60 grains. Thyroid extract has not yet been given sufficient trial. Hirst's description of securing catharsis,—and which he states to be the most satisfactory, is to wash out the stomach and to then introduce two ounces of castor oil and four drops of Croton oil through the tube; or an ounce of mag. sulph. in solution may be used in this way instead. To prepare a hot pack for diaphoresis, several hot bricks may be employed, each wrapped in a towel and four ounces of alcohol poured on each brick. These may then be placed under the wet blankets. The pack is continued for thirty minutes, and every four hours. For routine treatment he advises: 1. Avert the convulsion, if possible, with chloroform. 2. Give 15 minims of veratrum viride hypodermically. 3. Wash

out stomach and use castor oil as above. 4. Hot pack as above. 5. Hypodermoclysis, a pint of normal salt solution under the breast every eight hours, but not to be continued unless purging and diaphoresis have set in, for fear of edema of lungs. 6. If convulsions recur, repeat veratrum viride in 5 minim doses every hour, and if after three hours pulse is still bounding and patient cyanosed, perform venesection. 7. Under ordinary circumstances let labor alone.

"We paid no attention to the alienists," said the jurymen in the celebrated case recently before the courts in New York. In fact, one result of that trial was the discredit cast upon expert testimony. Through the sentimentality and hysteria which beclouded that case, that one result stands out clear and distinct. But closer at home, another case which excited some interest, brings out the fact that expert medical testimony is not weighed to much value by the people at large. But medical men are not the only people who can differ on questions of opinion. Indeed, if they were otherwise, and doctors ceased to differ, they might then be classed as wooden-heads. But the public is not satisfied. We doubt if the profession is. The system is at fault; and a better way of determining the right would be to have a medical commission appointed in these cases, whose sole duty would be to act in an advisory capacity to the court, and not be arrayed in opposite camps. This would better serve the ends of justice; and medical experts would in no sense be interested in the case of either the Crown or the defence. They would be simply interested in the ends of justice.

McGill University will have the earnest sympathy of the Canadian medical profession in the very severe loss it has suffered in the destruction by fire of its medical department. Particularly will all unite in sympathizing with Professors Shepherd, Ruttan and Adami, who lost their museums, and the two latter who lost their private libraries, which they kept in the building

for the benefit of their students. It is understood that—although at first announced otherwise—the manuscript of a new work on pathology which Professor Adami has been preparing for some years, has been saved. This is very gratifying to Professor Adami, and in it the profession in Canada will share. The fine library of some 25,000 volumes was completely destroyed. In this calamity which has befallen it, McGill will not be forgotten; for in that world-famous institution all Canada takes a just pride.

In the death of Dr. W. H. Drummond all Canada sorrowed. Although belonging to the medical profession, he had earned a just and full reward in literature. It was this which made him famous, and this will make his name live. Dr. Drummond's was a noble, generous soul. Big-hearted, kind-hearted, he was a fine type of citizen, an ornament equally to his profession and his country.

News Items.

Dr. H. A. Bruce, Toronto, will shortly go to England.

Dr. J. D. McKay, Marion, Ind., was in Toronto, May 9th.

A new quarantine hospital is to be soon opened in Winnipeg.

Dr. Halfpenny, Winnipeg, has been visiting in Baltimore.

Dr. Archer Brown has removed from Coboconk to Cannington.

The University Endowment Bill has passed the Legislature of British Columbia.

An Army Medical Corps is being formed in Winnipeg, with Dr. Webster in command.

Dr. Scott, of Winnipeg, has bought the practice of Dr. Cooper at Winkler, Man.

Dr. Thompson, M.P. for the Yukon, is reported to have been appointed Commissioner.

Hay and Stephen Townships, Huron County, Ontario, have had serious outbreaks of smallpox.

The number of deaths in Winnipeg for the first quarter of 1907 totalled 368, against 341 in 1906.

A new hospital is to be established at Saskatoon, and it will be under the control of the Grey Nuns.

Dr. John E. March, quarantine officer at the port of St. John, N.B., died of paralysis on the 3rd of April.

Mr. Irving H. Cameron, LL.D., will go to England this summer ; also Drs. J. A. Temple and Allen Bains.

STRATHCONA, Alberta, has been selected for the location of the Alberta University.

DR. F. W. SMITH returned to Aylmer recently after spending two years in special work in London, England.

THE estimate for expenditure for public health in Winnipeg for the current year is $146,000, being $30,000 more than in 1905-1906.

DR. LINEHAM, of Dauphin, Man., has removed to British Columbia. Dr. McKay, of Nova Scotia, has taken over his practice at Dauphin.

MAJOR LEONARD VAUX, M.D., Toronto, will be Canada's representative with the Imperial army at Aldershot. He sailed for England on May 1st.

SEVERAL members of the Ontario Legislature objected to the clause in the new Education Bill which provided for the medical inspection of schools.

THE deaths in Ontario in March numbered 2,736. Of these 16 were diphtheria, 13 measles, 29 typhoid fever, whooping cough 11, and consumption 212 cases.

MEMORIAL cots are being established in different hospitals in Canada. These will commemorate the death of Lady Grenfell, daughter of His Excellency and Lady Grey.

DR. J. R. JONES, professor of medicine in the Manitoba Medical College, who has been recuperating his health in Toronto, from a fractured pelvis, will proceed to England.

IN a recent address to the McGill medical students, Dean Roddick stated building operations would be proceeded with almost at once, and advised the students to stay at McGill.

THE doctors of Welland County met last week and organized the Welland County Medical Association, with these officers: President—Dr. Neff, of Port Colborne; Vice-Presidents—Drs. Schooley, of Welland, Brewster, of Ridgeway, and Thompson, of Niagara Falls. Secretary-Treasurer—Dr. Howell, of Welland; Executive Committee—Drs. Old, Glasgow, and Burgar.

About 500 students wrote on the examinations of the University of Manitoba, which closed April 26. In medicine there were 163, against 147 of last year.

Drs. McPhedran, Graham Chambers and Walter McKeown (Toronto) have returned from attending the Congress of American Physicians at Washington.

Robert A. Falconer, M.A., B.D., Litt.D., LL.D., principal of the Presbyterian College in Halifax, N.S., has been invited to the presidency of Toronto University.

By the will of the late Mrs. Peter Redpath, who died recently in England, McGill University will benefit to the extent of $150,000, and the Montreal General Hospital, $40,000.

Lieutenant-Governor Clark of Ontario laid the cornerstone of the new Medical Building, Queens University, in April. The Ontario Government gave $50,000 towards this building.

While standing on the platform of a train going into Winnipeg, Dr. A. McQueen, L.R.C.P., Edinburgh, fell and sustained a fracture of the skull from which he died almost immediately.

Dr. W. E. Bryans, whose home is in Grey Township, and who has spent the winter in charge of a large staff of men at Parry Sound, has taken a position in the Western Hospital, Toronto.

The Provincial Board of Health of Manitoba is as follows: President—Dr. R. M. Simpson, Winnipeg; John M. Eaton, M.D.; John A Macdonald, M.D.; F. L. Shaffner, M.D.; and Dr. Gordon Bell, bacteriologist.

Dr. Fred. B. Bowman, a recent graduate of the University of Toronto, who has been pursuing post-graduate work at Johns Hopkins, Baltimore, has been appointed assistant in the U. S. Government laboratory at Manila, Philippine Islands.

Dr. Donald Armour, London, England, Toronto University, 1904, and House Surgeon Toronto General Hospital, 1904-1905, has been awarded the Jacksonian Prize of the Royal College of Surgeons for 1906. This is the first time this prize has been won by a Canadian.

Dr. F. J. Ball, son of Mr. James Ball, Rugby, has finished his post-graduate studies in the Mother Country. Finding his health needed toning up, he is taking a trip to the Mediterranean as surgeon on a P. & O. passenger steamship, and writes home from Alexandria that he is enjoying the experience thoroughly, and that his strength is fully restored.

Dr. W. J. Smith, of Stratford, has associated himself with the firm of Drs. Robertson & Robertson. The doctor has recently returned from Great Britain, where he spent over a year in special surgical work in the leading hospitals there. He received the degrees of member of the Royal College of Surgeons, England, and Licentiate of the Royal College of Physicians, London, and was highly complimented on his standing.

Have the tracheotomy instruments handy before operating upon a case of angina Ludovici.

Cold abscess and lipoma often simulate each other very closely, especially around the chest. If in doubt, aspirate.

A history of attacks with symptoms of esophageal stricture and intervening periods of well-being is suggestive of cardiospasm.

It is a wise rule to submit all removed hypertrophied prostates to thorough examination by a pathologist. Carcinomatous degeneration may be found in some spot.

Never divide the annular ligament of the wrist. The hand is much weaker after it is divided than before.

In the presence of a hard, diffuse chronic swelling in the neck having some of the appearances of a malignant growth, the possibility that the tumor is a so-called "woody phlegmon of Reclus" must be considered.

After tracheotomy the air of the patient's room should be kept reasonably warm and moist. Draughts of cold air provoke much irritation.

A swelling in the parotid region is not necessarily a part of the pre-auricular lymphatic gland. Such an enlargement may be associated with herpes of the forehead, or sometimes, it may be part of a chain of tuberculous lymph glands.—*Am. Jour. of Surg.*

Publishers' Department

An Annual Visitor.—We have just passed through our annual epidemic of la grippe, which, as usual, claimed its victims among all classes and conditions, mainly, however, among the classes where the resisting power was below par, or among sufferers from some chronic ailment. While the sequelæ and complications of this disease may assume almost any phase of acute inflammatory character, its primary effect is upon the nervous system. Therefore, we have no hesitancy in saying, no matter what the local inflammation may require as a medicine, by all means give antikamnia tablets as a nerve sedative and to relieve the muscular pains always present. We have seen a violent cough of bronchitis treated upon the general plan, with the cough as distressing at the end of twenty-four hours as at the beginning, promptly yield to six antikamnia tablets during an interval of six hours. La grippe usually requires a double treatment, one directed to the influenza, and the other devoted to the complications present, be they of the respiratory organs or digestive tract. In all cases antikamnia tablets will be found to perform a prominent and successful part and purpose.—*Medical Reprints.*

Amputation of the Thigh under Hyoscine-Morphine-Cactine Anesthesia.—I wish to report the sucessful use of the hyoscine, morphine and cactine combination as a general anesthetic in an amputation of the thigh in the upper one-third.

The tablets used were those put up by The Abbott Alkaloidal Company, and contained Hyoscine Hydrobromide, gr. 1-100, Morphine Hydrobromide, gr. 1-4, Cactin, gr. 1-67. Injections (hypodermic) were given two hours, one hour, and half an hour before operation. Anesthesia was ideal and complete throughout operation and for several hours afterward. No ill effects whatever were noticed at any time. Muscular relaxation was not so complete as in ether or chloroform anesthesia, so that after the operation no subsequent contraction of flaps took place, and there was no more tension on the stitches afterward than at the time they were put in.

If this anesthetic will work in all cases as well as it did in this and numerous others reported in the medical journals, it

would appear to be the ideal anesthetic for field use and emergency work where one may be short-handed, as it does away entirely with the anesthetist and the space and care necessary in the transportation of ether or chloroform.

The absence of inconvenient after-effects is a most valuable feature of this preparation in field work, while the ability to perform serious operations promptly is of particular advantage; but of equal utility in active service is the possibility of securing complete rest and anesthesia in case of injuries too extensive to permit of immediate operative attention, such as in visceral injuries of the abdomen, chest or head. It seems a good thing for the military surgeon and should come into favor with him.

This tablet, in emergency work, in case of accident where a good many people are involved, like steamboat, railway, fire, factory, etc., has been found of the utmost service in alleviating the sufferings of the injured.—Henry G. Ebert, M.D., Assistant Surgeon in the Public Health and Marine Hospital Service, in the *Military Surgeon.*

A RECENT and very plausible theory ascribes rheumatism " to toxines formed in the alimentary canal as the result of disordered digestive functions, producing disturbances in metabolism and alteration in the tissues. The body suffering these effects of auto-intoxication has its vital resistance lowered and is therefore subject to microbic invasion." Tongaline, from the character of its composition, has an antitoxic effect on these microbes and by its stimulating action on the liver, the bowels, the kidneys and the pores it eliminates promptly and thoroughly the poisonous germs which are the cause of rheumatism, neuralgia, grippe, gout, nervous headache, sciatica, lumbago, tonsilitis and heavy colds.

THE BEST HYPNOTIC.—A patient who would sleep but cannot sleep should be made to sleep. In the choice of a hypnotic the physician should always seek that one which not alone is the most effective, but which presents the fewest disadvantages in the way of after effects. For years Bromidia has been the standard hypnotic prepared at the command of the profession. Through all the time that it has been known it has never failed in composition or efficiency. Its constituents have been of the purest, and, in fact, Bromidia has been the standard by which similar preparations have been measured. That the medical

profession have appreciated its worth and thorough reliability is well apparent, from the place it holds in the regard of every physician who appreciates stability and honesty.—*The International Journal of Surgery.*

Sanmetto in Enlarged Prostate and Chronic Cystitis, Irritable Bladder and Urethra.—I have used Sanmetto in enlarged prostate and chronic cystitis in old men, with marked good results, and observed that there was decided aphrodisiac effects; also in irritable bladder and urethra in the early months of pregnancy, with very happy results.—*M. A. Rush, M.D., Anderson, Ind.*

Fermentative Dyspepsia.—I have been treating a case of Fermentative Dyspepsia for some time, and thought I would wait until the cure was certain and likely to be permanent before I wrote you, but as it is now four weeks since patient has taken anything in the shape of medicine and has had no trouble whatever during that time (although rather careless about his diet), I thought it would be safe to inform you of one more victory for Glyco-Thymoline.

The patient, age 60, occupation—farmer. As far back as he can remember has had trouble with his stomach; heartburn, sour stomach, and enormous collections of gas in stomach and bowels. This is his own way of expressing his troubles. His condition when I first saw him was about as we described it above. The collections of gas in stomach and bowels were so enormous that he could scarcely ever lie down. Spent his nights in a sitting position. He was very much emaciated and completely discouraged, did not consider life worth living, and, indeed, had made several threats of suicide.

Well, it was not a very promising case for any physician to take, but in thinking it over I made up my mind that this would be a pretty good opportunity to try Glyco-Thymoline internally, and so I agreed to do what I could for him. To begin with, I regulated his diet, and then, as he was very constipated, got his bowels to acting regularly, one evacuation every day. I then, every other day, washed out his stomach with one ounce of Glyco-Thymoline in a pint of tepid water and gave him a teaspoonful of Glyco-Thymoline in a tablespoonful of water before and after each meal, and directed him if he was much troubled with gas in the night to take another dose about midnight.

The change in this man's condition in one week was simply wonderful. All the unpleasant symptoms from which he had suffered so long were entirely relieved. The fermentation of the food and the resultant formation of gas was almost nil, and he began to think life worth living after all. He steadily improved day by day, and now, as I said at first, he has been four weeks without the Glyco-Thymoline or any other medicine, and considers himself a perfectly well man, although he is still fairly careful about his diet, and from present appearances it only remains for me to modestly receive the heartfelt thanks of his long-suffering wife, whose life for years he has made a perfect Hades upon earth; his own profuse thanks, and incidentally a little something on account, which by the way is not quite so profuse as the thanks.

Now, this is almost my first experience with Glyco-Thymoline internally, but if I get as good results in all cases I shall certainly ask for nothing better in this class of cases, and if the patients do any kicking they will surely be hard to please.—*G. B. Murray, M.D., Greenwich, N.Y.*

Deranged Uterine Function.—It is safe to say that to the average physician, who is confronted almost daily with the ordinary cases of suppressed and deranged uterine function, no other class of cases is so uniformly disappointing in results and yields so sparing a return for the care and time devoted to their conduct.

Patients suffering from disorders of this nature are usually drawn from the middle walk of life, and, by reason of the pressure of household duties or the performance of the daily tasks incidental to their vocation, are entirely unable, in the slightest degree, to assist, by proper rest or procedure, the action of the administered remedy. Many of these patients, too, suffer in silence for months, and even when forced by the extremity of their sufferings to the physician, shrink from relating a complete history of their condition and absolutely refuse to submit to an examination. Authoritative medical teaching and experience unite in forcing upon the attendant a most pessimistic view of his efforts in behalf of these sufferers under such conditions.

It is in this class of practice, where almost everything depends upon the remedy alone, that a peculiarly aggravating condition of affairs exists. A very limited list of remedies of demonstrated value is presented for selection, and I believe I

am not wide of the mark in saying that, in the hands of most practitioners, no remedy or combination of remedies hitherto in general use has been productive of anything but disappointment.

Some time ago my attention was drawn to Ergoapiol (Smith) as a combination of value in the treatment of a great variety of uterine disorders. Its exhibition in several cases in my hands yielded such happy results that I have used it repeatedly in a considerable variety of conditions, and with such uniformly good results that I am confirmed in the opinion that its introduction to the profession marks an era in modern therapeutics. In the treatment of irregular menstruation and attendant conditions I have found it superior to any other emmenagogue with which I am familiar, in the following particulars:

1. It is prompt and certain in its action.
2. It is not nauseating and is not rejected by delicate stomachs.
3. It is absolutely innocuous.
4. It occasions no unpleasant after-effects.
5. It is convenient to dispense and administer.

The following clinical notes will afford a general idea of its action in a variety of cases:

Case 1. Mrs. —— came to me presenting the following symptoms incident to a delayed menstruation: Persistent headache of a neuralgic character; dull, aching pain in limbs and lumbar region; cramp-like pains in abdomen, and considerable nausea. The menstrual period was overdue seven days, but as yet there was no appearance of flow. Her periods had always been occasions of intense suffering, but had never before been delayed. I began the use of Ergoapiol (Smith), with some misgiving, owing to the irritable condition of the stomach. One capsule every three hours was administered without any aggravation of the gastric distress. In twenty hours a normal menstruation was well under way; the flow was slightly increased over the observed on former occasions. The pains had subsided. Ergoapiol (Smith) was administered, one capsule three times a day, during the menstrual period, which terminated in five days. The patient was instructed to return for a quantity of the remedy several days before the next menstrual period. She did so, and following directions, took one capsule three times a day for three days before expected menstruation. She subsequently reported that during the period—lasting five days—there had been practically no pain, and the amount of flow was, as far as she could judge, normal.

Case 2. Miss ——, age 30, has been a sufferer for years with dysmenorrhea. For about three years had suffered with leucorrhea, particularly annoying after each menstrual period. Had undergone treatment at different times for the leucorrhea and dysmenorrhea, but had never experienced permanent benefit. She had been obliged to expend the couple of days of each period in bed. She consulted me about one week before her period. Examination revealed a purulent discharge oozing from os cervix and a rather large uterus. There was no displacement. She was put upon Ergoapiol (Smith), one capsule three times a day. The onset occurred one day earlier than expected, and was attended with considerable pain. The patient was, however, able to attend to her usual duties, a state of affairs such as had not been experienced for some years. At the onset of the flow Ergoapiol (Smith) was administered, one capsule every two hours. The effect was astonishing. In eight hours the pain had well-nigh subsided, and there was practically no discomfort, except some pain in back.

Case 3. Miss ——, age 21, had suffered for two years with irregular and painful menstruation. Had commenced to menstruate when sixteen, menses being very scanty, but regular, and accompanied with but slight degree of suffering. Was never of a very robust physique, but in the main healthy. When about nineteen, considerable nervous trouble was inaugurated by grieving over a great bereavement, and the menses became more and more painful. The anguish became such a horror to her that she frequently resorted to morphine, partly to allay pain and partly to procure sleep. Fortunately, she had not, as yet, contracted the habit, but the tendency was undoubtedly in that direction. When first consulted by her, examination was not granted. Menses appearing shortly afterward, was called upon to afford relief. Flow was very scanty and clotted. There were sleeplessness, terrific headache, pain in back, constipation, etc. Ergoapiol (Smith) was administered, one capsule every three hours. Flow was considerably increased, there was a gradual lessening of all the suffering, and almost complete relief in twelve hours. This young woman has been placed upon Ergoapiol (Smith), one capsule twice daily for one week preceding appearance of menses, and has passed through several periods with very little suffering. An examination made recently showed a marked retroversion and very sensitive cervix. A properly applied supporter will doubtless work considerable benefit in her case, but it cannot be disputed that the comparatively easy menstruations

occurring recently, in spite of the displacement, were due entirely to Ergoapiol.

Case 4. Miss ——, age 18, had always been regular in menstruating. Could get no history of any previous disorder within patient's knowledge. Contracted a heavy cold about time of menstrual epoch, and was much alarmed by non-appearance of flow. Discomfort was not marked. Ergoapiol (Smith), one capsule three times a day, was prescribed. Reported later that flow was established in twenty-four hours after treatment was commenced. The delay in this case was about four days.

Case 5. Mrs. —— consulted me, giving the following history: Three months previously had had a profuse uterine hemorrhage occurring about the time of menstrual period. As she had for a number of years menstruated only at intervals of about six or seven weeks, the fact that menstruation had been suspended for six weeks before the date of trouble was not especially significant. The hemorrhage, which was at no time alarming, had continued for several days. Since that time there had been an almost constant wasting and at times a considerable flow. Her condition was practically invalid. Examination revealed a gaping os, a cervix exceedingly tender and abraded, and a large uterus. Before resorting to curettement it seemed adisable to try other measures. Ergoapiol (Smith), one capsule every three hours, was prescribed. In about twenty-four hours there was a decided increase in the discharge, which consisted of clots and considerable debris. There were some pains of a cramp-like nature. The discharge began to grow less in about four days and ceased entirely in one week. There was a marked improvement in general condition. Local treatment entirely removed the tenderness and abraded condition of cervix. Ergoapiol (Smith) was administered several days before next menstrual period and resulted in a very satisfactory period. In this case it appears to me the remedy saved the patient the ordeal of curettement, acting as a prompt uterine stimulant. Her condition locally and generally has since steadily improved.—*James A. Black, M.D., Morganza, Pa.*

I HAVE been using Resinol Soap and Salve for the past ten years in my home and practice, and am never without them. They give me entire satisfaction. Have never found any other Soap or Ointment to equal them.—JOHN W. TURLEY, M.D., Desloge, Mo.

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Gonorrheal Rheumatism.—In gonorrheal rheumatism saturate the patient with calcium sulphide—the best obtainable—and apply colloidal silver ointment to the joint.

Powder Burn of Face.—About a year ago I was called in a hurry to relieve the awful suffering of Carl Rucker, of this city, 10 years old, who when playing with other boys exploded about two ounces of coarse black shooting powder in a little earth mount, and not being quick enough to turn away got the most of the discharge into his face; even the conjunctivæ of both eyes were blackened, and from the burn and subsequent inflammation shut tight; one of the ears also got burned very badly.

To extract the powder from the skin I have in years gone by applied a thick layer of castile soap made into a sort of dough, and as I had to deal here with the inflammation and pain beside, I scraped a cake of shaving soap, mixed it thoroughly with Antiphlogistine, and applied it about one-half inch thick all over the face and ear, leaving a hole for the eyes, nostrils and mouth. About one-half hour later, the little patient, a very sensible child, rested very comfortable, free from pain, and slept a few hours soundly. About 24 hours later I removed the whole mask from the boy's face, and to my great delight and surprise the application had drawn out every kernel of the powder. The inflammation had been greatly reduced, pain was all gone, and the face appeared almost natural again, with the exception of the sclera of both eyes, which I treated with a solution of cocaine adrenalin.

Another remarkable circumstance is the fact that the boy at the same time got entirely rid of his freckles; not a trace of the latter could be detected.

For about a week the face got anointed with cold cream twice daily, and being well was discharged as cured.—*E. Kuder, M.D., Coffeyville, Kan.*

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Original Articles.

GOITRE AND ITS TREATMENT.*

By Geo. A. Bingham, M.B., Toronto.
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Four years ago at the request of the Committee on Papers I made a report to this Association based upon my experience with 33 cases of goitre operated upon. This year, in casting about for a subject upon which to address you, I thought it might be useful to omit those questions of medical politics which have been so thoroughly threshed out by my predecessors in this chair and to detail very briefly a second report on goitre and its treatment, founded on a series of 82 operations in all.

As pointed out by C. H. Mayo[1] the rapidly increasing number of cases operated upon during quite recent years does not mean that goitre is on the increase, but that nowadays, it is recognized that a comparatively early operation for goitre is, as a rule, followed by results most gratifying to both surgeon and patient and is accompanied by an extremely small mortality rate. Indeed, I would now go so far as to say that in cases where as yet no pressure symptoms have developed, the patient, in view of future development and even for esthetic reasons, has a perfect right to claim the benefits of an operation which, in careful hands, should be as free from danger as appendicectomy.

*President's Address, Ontario Medical Association.

The Parathyroids.

The anatomy and functions of the parathyroids and their relations to the thyroid gland have been matters of keen interest to the surgeon of late years and much experimentation has been carried out. But much remains still to be done before the riddle of these curious bodies shall be interpreted aright. First noted by Sandstrom, in 1880, and described by Horsley in 1884, many experimenters have since labored to ascertain their functions. They found that the thyroid and parathyroids were separate and distinct entities; that while complete removal of the thyroid interfered with assimilation and metabolism producing a chronic condition known as myxedema, on the other hand, complete removal of the parathyroids induced a very acute state of tetany, somewhat resembling the symptoms of Graves's disease, and from which the patient usually succumbed. Roswell Park[2] thus sums up the knowledge so far conveyed to us by the experimenters:

"1. There are two quite different sets of tissues involved in the thyroid and parathyroids.

"2. They are not completely independent of each other, for the removal of either one caused changes in the others.

"3. There is reason to believe that myxedema follows removal of the thyroid and tremors and nervous symptoms, including tachycardia, result from extirpation of the parathyroids.

"4. It would appear, further, that failure of the parathyroids is followed by enlargement of the thyroid. If this be true, Graves's disease seems to be explained, since the former would account for the enlargement of the thyroid sometimes so conspicuous, while the increased secretion afforded by this enlargement will account for the exophthalmos."

This relation of the parathyroids to Graves's disease, however, would appear to be pretty thoroughly disproven by the careful dissections of Benjamens, MacCallum and others who found that the parathyroids were perfectly normal in cases of exophthalmic goitre examined and therefore could have nothing to do with the production of the disease. These little ductless glands, which have received so much attention of late (and to the study of which I beg to direct the efforts of my younger scientific friends in the profession), are usually four in number, two upper and two lower, and, as a rule, lie behind the thyroid, often in the neighborhood of the entrance to the gland ot the superior and inferior thyroid arteries, from which vessels they

receive their blood supply. They have been found most frequently in the areolar tissue behind the gland, sometimes in contact with the gland capsule and rarely within the capsule embedded in the thyroid tissue itself. They are elliptical in shape and homogeneous in appearance, and they are much softer in consistence than either thyroid or lymphatic tissue[3].

Let us now ask ourselves the question—Of what value to the operating surgeon is this somewhat vague and indefinite knowledge of the situation and function of the parathyroids? Here I think we must all agree that in operations upon the thyroid, we should endeavor to leave intact a part and, if possible, all of the parathyroids, as it has been shown that the severity and danger of the tetanic condition resulting from their extirpation is in direct proportion to the amount of parathyroid tissue removed. The only difference of opinion will be as to how, during an operation, the safety of the parathyroids may be best conserved.

It has been suggested by Park[4] that this end might be most effectually attained by opening up the thyroid capsule and enucleating the gland, thus leaving behind the capsule and, of course, the parathyroids in contact with it. To this method I must object for several reasons, some positive and others negative:

1. The hemorrhage resulting is always severe and makes the operation an unsatisfactory one.

2. In thyroidectomy, I almost invariably leave one lobe intact and, consequently, at least two of the parathyroids are preserved and, in man, it seems fairly certain that two normal parathyroids are sufficient.

3. While the parathyroids in dogs are quite often found within the thyroid capsule, I have never found it so in man, nor, so far as I know, have others of much greater experience and opportunity of observation.

4. It would seem that by exercising care during an operation upon the thyroid, the parathyroids may often be distinguished, avoided and their blood supply preserved.

5. Finally, by working very close to the outer surface of the thyroid capsule and by ligating the vessels at a point as close as possible to the gland, it would appear very probable that the parathyroids would be preserved even though not recognized during the operation.

Graves's Disease.

As has been pointed out by Kocher[5] the term exophthalmic goitre is misleading, inasmuch as the exophthalmos is not, as a rule, present at the beginning of the disease and, indeed, may not develop until the very life of the patient is threatened. Now, as the cure of the patient depends very largely upon an early diagnosis by the physician, it would seem wise to discard the term, "exophthalmic," at all events in connection with the earlier symptomatology of the disease. Every surgeon interested in this class of work has encountered cases differing greatly in severity. Kocher[6] classifies these types of varying degrees of intensity as follows:

Class A. Vascular Goitre.—This type develops rather suddenly as a soft and uniform enlargement of the gland. Exophthalmos is absent, but Graefe's sign is probably present. Tachycardia, tremor, enlargement of the vessels of the gland, with bruit and thrill, are nearly always symptoms of this variety of goitre from the beginning.

Class B. Struma gravesiana colloides.—Here an ordinary colloid goitre has existed perhaps for years when, suddenly or slowly, symptoms of Graves's disease make their appearance. Exophthalmos is often absent until the disease is well developed. All the other symptoms are present but are not so severe as in a typical case of Graves's disease. It is suggested that in these cases the colloid material present may, in some way, counteract the toxic effect of the hyper-secretion of the gland upon the sympathetic nervous system.

Class C. Typical Graves's Disease.—In this class, the symptoms of the disease develop slowly or sometimes suddenly, frequently with a history of previous long-continued nerve strain or a severe mental shock. Exophthalmos is present and all the other symptoms are well marked and severe. If this type of the disease be not early recognized and treated, it runs a rapid course and secondary changes soon appear in heart, muscle and vessel walls, which render impossible an operation which, if undertaken at an earlier date, would almost certainly have effected a cure.

Including these three classes of Graves's disease, I have operated upon 13 cases, 4 males and 9 females. Ten of these cases improved steadily after operation and to-day consider themselves cured. In regard to the three deaths, all belonged to the typical class of Graves's disease. The first was a male in good mental condition prior to operation. He died in a

severe maniacal condition 72 hours afterwards. In this case the operation was an easy one, the tumor was not large, though deeply placed and there was but little manipulation of the gland, the smaller lobe being left *in situ*, as has been my custom. I confess that this case has been a complete puzzle to me. The other two cases were females with the disease altogether too far advanced for operation. On neither of them, with my present experience, would I now operate. One of them died in an asylum three and a half months after the operation. There was a rapid recrudescence of the growth in the remaining lobe and she died of exhaustion. The other case died six hours after the operation of heart failure. Now, although thirteen cases of Graves's disease is but a small number from which to make deductions, yet the fact that 77 per cent. of them were cured has quite decided for me the question of the advisability of operation in these cases. The all important points are for the physician to make his diagnosis early, put the patient to bed and make his surroundings such that he will be in a condition of absolute rest, physical and mental. As for medicines, in addition to maintaining strictly the nutrition and functions of the body, I have used phosphate of sodium grs. V. t. i. d. with apparent benefit. Theoretically phosphorus in some form is indicated. Under such treatment some will be cured, others will improve up to a certain point, and the wise physician will soon see when his patient has reached that point and will hand him over to the surgeon long before the disease has advanced to such a stage as will render an operation useless. I believe that every case of Graves's disease, when seen early enough, should be submitted to this rest treatment for two or three weeks before operation.

The operation carried out on my cases, as a rule, has been the removal of the larger lobe and the isthmus, though in two cases when both lobes were equally enlarged, I removed the whole gland with the exception of a small portion of one lobe.

I have had no experience in other methods of operating for Graves's disease, such as ligating the thyroid vessels or sympathectomy. As to the former, if the thyroid veins were included in the ligature, one would expect an immediate increased absorption of the glandular secretion through the lymphatics, and a consequent exaggeration of the symptoms. Again, ligature of the vessels would expose the patient to the dangers of gangrene; and besides, the deliberate exposure and ligaturing of the thyroid vessels would be quite as serious an operation as thyroidectomy itself. As for sympathectomy, I cannot see

how the removal of the sympathetic ganglia can possibly cure a condition which (if my experience of 77 per cent. of cures by operation is of any value), must be caused by some abnormal activity of the gland itself.

Whether the disease be due to the secreting by the enlarged gland of some toxic substance other than the normal secretion as was long ago argued by Horsley; or whether Graves's disease be merely an expression of toxic poisoning by a hyperactivity of the gland and an over-production of its normal secretion is still a debated point. In favor of the latter theory I would point out a fact that is very generally known, viz., that by feeding a healthy subject upon thyroid extract one can produce most of the symptoms of Graves's disease.

Malignant Goitre.

In this condition complete and early operation offers the only chance for the patient. Unfortunately, a sufficiently early diagnosis is not usually made, the neighboring glands being already involved. Even in such advanced cases the patient may be made fairly comfortable by partial removal, thus relieving pressure and making possible a future tracheotomy.

I have done a thyroidectomy in only three cases of malignant goitre, all females. One who was also suffering from Bright's disease died a week later from uremia. It was at her own earnest solicitation that I operated in this case. The second case, an old lady of 70, died two weeks after operation of exhaustion following a long journey to her home. The third died of recurrence six months after operation.

Simple Goitre.

In a series of 66 cases of simple parenchymatous goitre operated on, I have had three deaths. The causes of these deaths are of interest:

Case 1. A huge goitre in a girl, aged 17, which was causing very severe pressure symptoms, was easily removed. Twenty-four hours later, when I visited her, I found her extremely lively and clamoring for food. The nurse reported that the patient had been feeling so well all morning, that it had been difficult to keep her in bed and impossible to keep her quiet. Six hours after my visit she suddenly sat up in bed, screamed once and fell back dead. No autopsy was allowed. The cause of death was probably pulmonary embolus. This result impressed me with the wisdom of insisting in all cases and, especially where the operation field has been very large,

that the patient shall remain perfectly quiet so far as the head and neck are concerned during the first 48 hours after operation.

Case 2. Was an aged woman, with the largest goitre I ever saw, weighing 6¾ pounds when removed. The anatomical relations behind the gland were much disturbed and the adhesions were dense. In breaking down some adhesions, the much-displaced and attenuated esophagus was unfortunately torn across and she died three weeks later of inanition. Here, again, the lesson was learned that in all such extreme cases, a stomach tube should be passed and the esophagus carefully outlined before the final steps of the operation are undertaken. Had this been done in Case 2, the accident would not have happened.

Case 3. Was a man aged 45, from whom the right lobe and isthmus had been removed two and a half years ago for Graves's disease. The remaining lobe had been injured some months ago and increased in size quite rapidly, so that he now returned to have it removed owing to severe pressure symptoms. The operation was difficult, owing to the cicatricial contractions and adhesions, and the extremely vascular nature of the tumor. He did fairly well for 30 hours, with the exception of some difficulty in breathing. At that time he suddenly became cyanosed, respiration quickly failed and he died shortly afterwards. It looked like failure of the respiratory centre, but no autopsy was allowed.

I am aware that this mortality of 4.54 per cent. is too large, but I feel sure that at least two of such deaths would never occur in one's practice a second time.

I should like to detail a few points in the history of the last named case, illustrating the effects of operation on a typical case of Graves's disease. Mr. W., aged 42, presented himself in September, 1904, with a very large goitre, both lobes being involved, the right being the larger. The vessels of the gland were enormous, the thrill and bruit being marked. Exophthalmos and tachycardia were extreme, the pulse rate being 130 to 140. Tremor was very marked. Although a tall man, he weighed about 100 pounds. This man's history dated back for about a year, since when he has lost flesh rapidly and all the symptoms of Graves's disease have developed. His mental condition was bad. There has been a complete change of temperament. He has threatened his wife's life and his own, and was noisy, flighty and at times vicious in temper. I removed the right lobe and isthmus and he returned home within two

weeks of operation. He returned to me in April, 1907. His weight was 160 pounds, and he had worked steadily since his recovery from the operation. Instead of the wild, excited picture which he had formerly presented, he was now quiet, self-controlled and mentally quite normal. The pulse rate was 82, the exophthalmos and tremor were gone and he declared that he was in excellent health. Unfortunately, during the previous winter, the left lobe, which had become much reduced in size, had been injured in an accident, since which it had grown rather rapidly, and he returned to have it removed because it was kinking the trachea and thus interfering with his breathing.

Illustrating the class of cases described by Kocher, as thyroidea gravesiana colloides, is the following: Miss B., aged 44, has had a goitre for fifteen years, but paid no attention to it until one and a half years ago, when tachycardia and tremor began to trouble her. Steady loss of flesh ensued and now exophthalmos is quite marked. All the symptoms are more moderate than in the case of Mr. W. just quoted. Left lobe and isthmus were removed. She went home in three weeks and a steady improvement has resulted. Though she had been unable to work for a year previous to operation, she is now, three months after operation, doing light house-work and enjoying life.

The next case quoted clearly belongs to the class of vascular goitres. W. J., aged 27, an Englishman, has been troubled with goitre for eight months. It interferes with his breathing, especially when he stoops. As he is a farmer, this prevents him from working. Thrill and bruit present and pulse rate 102 to 110. Slight tremor and muscular twitching. Exophthalmos is absent, but Kocher's sign is distinct, viz., sudden retraction of the upper eyelid when the patient is made to look steadily at his examiner. Right lobe and isthmus removed. Patient left hospital on ninth day. Four months after operation his physician writes to say that the man is quite well and working every day.

The Anesthetic.

I still use a general anesthetic, preferably chloroform, or a mixture of chloroform and ether, *administered by an expert.* We have always followed the rules mentioned in my former report[7] and in none of my cases have we had any serious difficulty.

The Technique.

The distinguished gentleman who is to open the discussion on Surgery to-day (Dr. Crile, of Cleveland), has done much to aid the surgeon in the carrying out of this operation by his teaching as to blood pressure and the use of adrenalin, while the elevation of the head and shoulders of the patient, especially in operations for Graves's disease, materially reduces the amount of blood in the field and the resulting hemorrhage.

The transverse incision is the one chosen in most cases, and the technique has changed but little during the last four years. There is one change which, perhaps, should be noted. Instead of transfixing and tying off the pedicle (which is usually the junction of the isthmus and the lobe to be left behind), I now tear through this pedicle with a blunt dissector and seize and tie any small vessels which may bleed. This is practically the only operation in which I use silk in ligating the vessels. The possibility of cat-gut ligatures slipping or untieing in a very restless patient and resulting secondary hemorrhage has so far deterred me from using it.

I am thoroughly impressed with the importance of another feature in the technique of thyroidectomy, viz., the avoidance of excessive manipulation of the gland during the removal. In some of the earlier cases where this rule was not carefully observed the convalescence was quite stormy. I am now convinced that this was largely due to hyper-secretion, caused by unnecessary manipulation; this, of course, being followed by undue absorption and the production of a toxic tetany. The manipulations must be gentle and the various steps of the operation carried out in a precise and clean-cut manner.

In cases of cystic goitre affecting both lobes, my experience has shown me that it is not enough to remove one lobe and the isthmus, as cystic degeneration will continue in the remaining lobe. It would seem to be safer, after having removed the lobe most affected with the isthmus, to incise the capsule of the remaining lobe and enucleate every cyst to be found.

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SYMPOSIUM ON PUBLIC HEALTH MATTERS.—THE MEDICO-LEGAL ASPECTS.

By G. Silverthorn, M.D., Toronto.

In all civilized countries there is some form of preliminary investigation when there is reason to believe that a deceased person came to his death from violent or unfair means, or by culpable or negligent conduct of himself or others, and not through mere accident or mischance. The necessity of such an investigation is recognized by all and should be held without delay and by competent officers and, if necessary, without anybody being accused and, in fact, it is to afford evidence of the necessity or otherwise of anybody being accused that the investigation is of greatest use.

The mode of conducting such an investigation varies in different countries.

Among English-speaking nations, as a rule, the office of Coroner is charged with such. The Coroner investigates by interviewing the persons concerned, examining the circumstances and surroundings, etc., and if he then considers an inquest necessary, he makes a declaration in writing as to that necessity, before a justice of the peace, summons a jury of not less than twelve men, swears them, then together they view the body. The Coroner then examines witnesses under oath and the jury renders a verdict. There may or may not be a prisoner under arrest. The accused may be indicted on the inquisition without any presentation before the Grand Jury, but practically an independent inquiry is always held before a justice in the ordinary way.

Other Modes of Inquiry.

Neither the coroner nor his jury exists among the continental nations of Europe, and the modes of procedure in the case of bodies found dead by violence or unknown causes, in all continental countries, and in Scotland, agree in the absence of these officials.

In France, the investigation is conducted by two officers, whose functions are entirely distinct, a legal and a medical officer. The former, the procureur de la republique, an officer somewhat analogous to the district attorney, takes the initiative in each case, proceeds to view the dead body, summons

witnesses, and takes the evidence. Liberal power is granted to him, and he can seize articles, or papers,, connected with any crime, restrain persons from leaving the premises, and employ experts and detectives, as the case may require. In the latter direction the French system is, beyond question, an unusually efficient mode of procedure.

The other officer, the medical, is selected for his superior training and knowledge, and has charge of the medical examiation of the body. Sometimes two medical officers are employed. The medical officer is also still further associated with the subsequent prosecution of suspected parties when the legal officer has decided that a crime has been committed. His report must be signed by a police official and submitted to a magistrate. If the evidence presented to the magistrate is deemed sufficient, an indictment is prepared for the cour d'appel, and a trial may then take place before a jury.

In Scotland the process employed is similar to that of France. The procurator fiscal, who has the investigation in charge, has for his guidance a code of instructions drawn up by the lord advocate. This code also gives detailed directions to the medical men who have the charge of the medical examinations, two medical officers being employed in each case. The reports of these officials are sent to the office of the crown agent at Edinburgh, and by him are transmitted to the advocate deputé. If he decides that there is suspicion of crime, he refers the report back to the procurator fiscal for further investigation. If he is in doubt, he may bring the case before the crown officers. Beyond this, a criminal trial is much the same as in England.

In Germany, there is neither coroner nor any analogous officer, nor a jury, on the preliminary investigation. A judicial officer has charge of the proceedings (Staatsanwalt). His powers are like those of a district attorney. The police are under his control in all matters relating to the investigation of crime. They are also bound on their own part to investigate suspected crimes, cases of sudden or violent death, and no interment is allowed in such cases till after the consent of the district attorney or a competent court is obtained. Medical officers are regularly appointed to make autopsies and medical examinations and report upon them. The German code of regulations as to the modes of procedure in examinations of bodies, both judicial and medical, is very explicit. If the district attorney believes that a crime has been committed he institutes a trial, and if the court believes that sufficient reasons

are presented, it orders a preliminary inquiry (gerichtliche Voruntersuchung), before a justice, the result of which is usually decisive. (Law of October 1st, 1879).

In Russia the law is similar in its provisions to that of France.

In Denmark the system is also very efficient, a judicial officer being appointed who has charge of all cases, which he decides without the intervention of a jury. He refers all medical questions to a medical officer, who is appointed for the purpose and reports to the judge the result of his examination, and autopsy, if one is made. He also makes a similar report to the Royal Bureau of Health. The trial which follows, in case of indictment, is first before the county judge, from whom appeals may be made to higher courts.

United States. The laws relating to inquests in the United States all bear the marks of English origin, and were evidently introduced by the early settlers, with most of the peculiarities of the English law, though stripped of some of the singular customs of early times. The coroner, the coroner's jury, and the inquest, exist in nearly all of the United States, at the present time, practically in the English form. Massachusetts made a radical change, abolishing the office of coroner, and also the jury, in 1877, since which time inquests have been conducted with greater care and economy, and to the entire satisfaction of the people and of the State (see *Examiner Medical*).

Connecticut and Rhode Island have also recently enacted similar laws, of a less radical nature.

In the other States there are certain points of difference, chiefly of minor importance, relating to the functions of the office of coroner, the mode of his election or appointment, his fees, the number of the jury and the employment of medical officers.

In a few States an inquest may be held in the case of a person who is seriously wounded, and in imminent danger of death. In Indiana, the jury was abolished by an act of 1879. In Texas, the inquest is also held without a jury.

After consideration of these various ways, it seems to me that a preliminary investigation by a properly trained medical man, such as a coroner should be, if necessary, followed by a subsequent investigation by him, with power to summon and examine witnesses under oath, together with an intelligent jury, is the best method of procedure. The usual objection to such is that of the inherent incongruity of an office requiring an ex-

pert knowledge of law and medicine. To my mind this objection is more than offset by the advantage of having the presiding officer of the court, one accustomed to the character of the evidence, as to the third part of the object of the inquiry, namely,—" by what means " the person came to his death. " When " and " where " are not usually such intricate questions as to need great legal acumen. In Ontario we have the coroner's investigation and the Coroner's court.

To my mind there is no just or sufficient reason for changing the system, no cases of corrupt practice, injustice or outstanding incompetence having shown themselves. The results are, as a rule, reliable and trustworthy.

The main facts of the system here in Ontario, to my mind, are, first: The manner of appointment of coroners. Secondly, their inadequate fees. Thirdly, lack of discrimination in the appointment of medical witnesses to perform the post-mortem examination. Fourthly, their inadequate fees. Fifthly, the lack of any central authority who should be entrusted with the compilation, classification, and publication of the returns.

Appointment of Coroners in England.

The name of the office was derived *a corona,* since the coroner was at first a royal officer. For many centuries county coroners have been elective officers. The right of the counties to elect their own coroners is confirmed by the Statute 3, Edward I., 10. Municipal boroughs also elect their own coroners. Certain franchises also have coroners of their own, within whose precincts the county coroner cannot act. In such places the coroner is appointed by the lord of the manor, and in one English franchise the coroner holds office by hereditary right. There are fifty-five franchise coroners, and one hundred and seventy-five coroners acting for counties, or parts of counties. These are very unequally distributed. Middlesex, with about four million inhabitants, including the populous part of London, has five coroners, while the small county of Huntingdon, with less than sixty thousand inhabitants, has also five, and Dorset, also a small county, has eleven.

Every freeholder is entitled to vote in the election of coroner. No professional qualification is required for the office, the only requisite being that the candidate should possess a freehold interest in the county.

For more than fifty years, complaints with reference to ignorance, and culpable neglect in the management of the office have been so common as to direct popular attention to the

necessity of reform; and while no comprehensive statute has been enacted with reference to such reform in England, the persistent efforts of prominent medical men have been so far successful that professional men are now usually elected to vacant offices.

A coroner usually holds office for life, but may be removed by the Lord Chancellor for misconduct or incompetence.

The county coroner receives a salary. He may appoint a deputy to act during his absence or illness. This deputy must be either a barrister, a solicitor, or a physician. The coroner is *ex-officio* a justice of the peace, and may therefore cause any one suspected of murder to be arrested, even before the jury has found its verdict.

The modes of election in the different States are quite diverse. In Alabama, Arkansas, Colorado, Georgia, Idaho, Iowa, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Washington, Wisconsin, and Wyoming, the coroner is elected by the inhabitants of the county. In Tennessee he is appointed by the county court. In Virginia a county court appoints a coroner for two years, and can appoint more if necessary. In Illinois, Indiana, Maine, and New Hampshire, the governor appoints the coroner. In Texas, Vermont, and Utah, the office of coroner is unknown, a justice of the peace acting in all cases in which the presence of such an official is required.

In several cities of the United States, the coroner is a salaried officer, such being the case in New York, Philadelphia, Detroit, St. Louis, Cincinnati, Cleveland, Washington, Charleston, Wilmington (Del.), and other cities, a plan which has obvious advantages.

In Ontario coroners must be specially appointed by the Lieut.-Governor by commission under the Great Seal, unless, indeed, the Chief Justice and the other judges of the Supreme and High Courts in Canada are sovereign coroners *virtute officii,* in a similar manner to the judges of the corresponding courts in England. One or more coroners are first appointed for each county, city and town and for any provisional judicial, temporary judicial, or territorial district, or provisional county, or for any portions of the territory of Ontario not attached to a county for ordinary municipal and judicial purposes. The appointments are generally made upon the recommendation of a member of parliament, or other person possessing influence with the executive.

When one county separates from another the municipal law of Ontario requires the Lieut.-Governor to appoint one or more coroners for the junior county, whose appointments take effect on the day the counties become disunited.

With regard to the number of coroners for any county, city or town in Ontario, there is no regulation. The number not being limited, the appointments are in part governed by the requirements of the locality, and possibly in part by the energy shown by those seeking the office.

In Ontario, "provincial coroners," for purposes of holding fire investigations, are appointed by the Lieut.-Governor-in-Council under the Great Seal. As to these coroners, see further at p. 29 (Boys on Coroners).

Qualifications and Disqualifications.

Formerly, the office of coroner was of such high repute that no one under the degree of knighthood could aspire to its attainment, and in the reign of Edward the Third a coroner was actually removed from the office because he was a merchant! It has, however, now fallen from such pristine dignity; and though still of great respectability, no qualifications are required beyond being a male of the full age of twenty-one years, of sound mind, and a subject of His Majesty, and possessing the amount of education and mental ability necessary for the proper discharge of the duties.

These qualifications are no more than what all public officers by the common law are supposed, and ought, to possess. The coroner has often a very delicate and very important duty to perform, and it need hardly be said that the proper discharge of that duty depends almost entirely on his personal character and ability. Where these are deficient, scenes sometimes occur at inquests which throw discredit upon the office of coroner.

Coroners in Ontario are not competent or qualified to be justices of the peace during the time they exercise their office. But an exception is made in territorial and temporary judicial districts, where stipendiary magistrates may be appointed coroners for such districts. And provincial coroners appointed in Ontario for holding fire investigations are justices of the peace for every county and part of Ontario by virtue of their office. And a stipendiary magistrate for any territorial or temporary judicial district in Ontario may be a coroner for the district.

Before acting as coroner, the oath of allegiance and the oath of office should be taken, since holding an inquest without

taking these oaths would subject the coroner to a penalty, although his acts would probably be legal.

From the above it would appear that in Ontario we must congratulate ourselves that the powers that be have recognized that only medical men should be appointed to the office of coroner. I would, however, suggest that the number should be limited and only those of a legal turn of mind be appointed. This would make for efficiency and be an encouragement for good and thorough work. In Toronto the experiment of appointing a chief coroner is at present being tried. To him are reported all cases, and he determines whether an investigation is to be held, and if so, appoints in rotation a coroner to undertake it. In certain class of cases he is debarred from acting, and then the County Crown Attorney appoints the acting coroner.

Fees of Coroners.

It would appear that the fees of a coroner in Ontario are not adequate for the time consumed and the services rendered. I am informed that an association of coroners is in process of formation, and it is hoped that such representation will be made to the Government as will result in a modification of the existing law in regard to fees.

Appointment of Medical Witness to Perform Post-Mortem Examination.

In Ontario, if the coroner finds that the deceased was attended during his last illness or at his death by any legally qualified medical practitioner, he may issue his order for the attendance of such practitioner as a witness at such inquest. Or, if the coroner finds that the deceased was not so attended, he may issue his order for the attendance of any legally qualified medical practitioner, being at the time in actual practice, in or near the place where the death happened; and the coroner may, at any time before the termination of the inquest, direct a post-mortem examination by the medical witness summoned to attend at the inquest. (Boys, 249.)

The practitioner chosen to make a post-mortem examination should be the best qualified the neighborhood affords. (Boys, 252.)

A second medical practitioner cannot properly be called by the coroner alone. The majority of the jury must ask for him, and name him to the coroner in writing. (Boys, 251.)

From the above it appears that the coroner has the greatest latitude in choosing who shall perform the post-mortem ex-

amination. Prof. Tidy states that if the medical attendant of the deceased is in any way inculpated, or his treatment called in question, or if any accusation regarding the death or treatment of the deceased has been made by a medical man, he should not perform the post-mortem, and that it is not advisable that he should be present at it, but he should be represented and name him to the coroner in writing. (Boys, 251.)

In some of the States in the United States, physicians are regularly appointed to perform the necessary examinations for coroners. If, then, the coroner always exercised his best judgment in the protection of the medical practitioner to perform the post-mortem, it would do much to improve the condition of affairs. The fees allowed the medical witness who performs the post-mortem differs from that of the medical witness without a post-mortem in that the former is allowed five dollars more for the first day at the inquest. In other words, the post-mortem is rated at five dollars. This sum is, in most cases, very inadequate, and when one considers the case of exhumation or a badly decomposed body, the absurdity is striking. Such a fee is not enough to attract the most capable men, and so the coroner often hesitates to summon the most capable, feeling that he is, to some extent, imposing a duty without adequate remuneration. No provision is made for a microscopical examination which, in many cases, is to be deplored.

While advocating an increase in the fees allowed the coroner and the medical witness who performs the post-mortem examination, we must not lose sight of the fact that the cost of investigations of this character should not be excessive. In many places this cost is easily ascertained, but in Ontario this is at present almost impossible, owing to the fact that there is no central authority to whom full reports are sent. Here in Ontario the depositions or evidence must be certified and subscribed by the coroner and caused to be delivered without delay, together with the written information, if any, and the inquisition, to the crown attorney for the county. In cases of manslaughter or murder, to a magistrate who will ultimately send them to the crown attorney. The crown attorneys then, all over the Province of Ontario, have in their possession the records and are no doubt made use of only for legal purposes in each case where further action is taken.

In addition to this coroners in Ontario are required to return lists of the inquests *super visum corporis* held by them during the preceding year, together with the findings of the juries, to the provincial treasurer, on or before the first day

of January in every year. In regard to expenses in Ontario the coroner is supposed to pay them and he can then present his account to the county treasurer for payment. In practice, however, each person makes out his own account, and after getting it certified as correct by the coroner, leaves it with the clerk of the peace. For an analysis, the coroner must apply to the Attorney-General for his sanction in order to have the amount paid by the Government. The coroner should give the medical witness an order for the payment of his fees on the treasurer of the city or county. In regard to the final payment of these accounts I understand that the coroner's account is repaid to the municipality by the Government, but the fees for the medical witness is not so repaid. I am informed that in the city of Toronto, the number of cases investigated were, 1904, 3; in 1905, 71; County of York, 1905, 14; in 1906, 12; but whether these were only preliminary investigations or inquests is not stated. From this it is seen that it is not an easy matter to come to any conclusion as to the cost of the necessary work in this regard in Ontario.

To conclude, then, it seems to me that before we are in a position to properly discuss this question further and outline a scheme for the improvement of the conditions prevailing, it is necessary for us to be in a position to ascertain the number of inquests held, the number of preliminary investigations held, fees paid to coroners, fees paid to medical witnesses, and in addition to have some system whereby the records may be accessible for study and comparison.

Discussion.

W. Arrell (Cayuga).—The present method of paying coroners is very unfair. If a coroner is asked to make an investigation in a case of death by a crown attorney he ought to be paid for this investigation, and if an inquest is held as a result of this investigation he ought to be paid for the inquest held. As the law now is, if a coroner makes an investigation and an inquest is held after, he is paid nothing for the investigation although he may have spent days and driven many miles.

H. S. Bingham (Cannington).—Dr. Bingham opposed the election system in the appointment of coroners, and further supported the idea of the office of a coroner being filled by a medical man, rather than a lawyer, etc., etc.

John Hunter (Toronto).—Would it not be advisable to somewhat widen the scope of the coroner. For instance, a patient may be apparently at least making favorable progress

when suddenly a change takes place and death follows. The physician may be very desirous to ascertain the exact cause of death, but the relatives object. Could not some scheme be devised whereby the attending physician in sending out the certificate of death, might make some suggestion that could be acted upon by the coroner, and an autopsy held by a competent physician. The report of these autopsies should be filed, so as to be made use of by medical men. Some such scheme would furnish very much valuable information.

N. A. POWELL.—The coroner's office in many States of the American Union is a reward for political services, and the result is what might have been expected. Massachusetts, disgusted with what had been seen, turned to the medical examination system, and it has been such a success that other States are now introducing plans for the investigation of violent deaths. Ontario, by the appointment of medical men only as coroners, and by requiring an oath as to the necessity for an inquest before a warrant is issued, has raised the status of these investigations and given us a system of which we do not need to feel ashamed. Still we could, with the greatest advantage, change to a system, in the main similar to that of Massachusetts, in which a legal expert, such as a junior county judge, investigates each case of suspicious death along lines in which he is capable of doing his best work, while an expert in pathology investigates its strictly medical aspects, and so the ends of justice are swiftly and inexpensively furthered without undue publicity.

D. D. MACTAGGART.—The Coroner's Court is essentially a Court of Record, according to the authorities on Criminal Law, and coroners should legally keep a record of all investigations held either with or without jurors.

The judicial acts and proceedings should be enrolled as a perpetual memorial and testimony. A complete record should be made in every case, and these records deposited in the vault of the nearest Court House, and at time of making deposit the coroner should obtain a receipt from the Clerk of the Peace and Crown or other official in charge. These returns should be made every month, so that contents of records may be of use to those requiring them.

I am of the opinion that the position of coroner should be filled by a legal man, who should have associated with him a medical examiner. In cases of violent death or sudden death without medical attendance, the medical examiner would be called and make the necessary examination. If he is satisfied

that there is absolutely no evidence of crime, he makes such report to the coroner, who may then dispose of the case. But if, on the other hand, there is the slightest evidence of crime, then the coroner will exercise his judicial functions by calling a jury and witnesses and investigating the case. By this means the legal side is left entirely to lawyers, as it should be, and the medical examiner has only to deal with things medical. If medical men are appointed as coroners, they are often called on to act as judge and witness, and no man can fill the two positions.

My suggestion would be to divide the province into districts and have one coroner for each district, who should have a deputy to assist him and act as the clerk of the court. A chief medical examiner and assistants should be appointed for each district. The appointment of coroners should be made by the Lieut.-Governor-in-Council. Medical examiners should be appointed in the same way and should be selected from men who have had a large experience in autopsy and pathological work in order that correct results may be obtained.

The question of fees should be a secondary one. The first object is to establish a proper system with good appointments, and this having been done, the question of fees could then be taken up. In large centres, like the City of Toronto, a salary might be given, but in other places, where the work is not arduous, a magistrate could fill the position and be paid by fees.

Coroners' Association.—Following the suggestion I have made of separating entirely the legal and medical sides of the question, I cannot see that a coroners' association would be of any benefit to the medical profession, but would suggest rather the formation of a Medico-Legal Society, the nucleus of such a society to be the Medical Examiners, and that this society either hold a meeting yearly or form a section of the Ontario Medical Association, and not take up homicide only, which is the only investigation that one has to deal with at a coroner's inquest, but take up also insanity, disability following injury and other matters of a medico-legal nature, which are continually coming before the civil courts.

Analytical reports of the medical examiners could be compiled and submitted at the annual meeting. By this means a broad view of medico-legal matters is taken, and the results would be of benefit to the profession in general. As medical men, our duty is to find the cause of death—let the lawyers, acting on the side of justice, find out who is responsible for the death.

HOSPITALS FOR THE INSANE IN ONTARIO—IDEALS.

By C. K. Clarke. M.D. LL.D., Toronto.

On the whole Ontario has done well for the insane of the Province, and while the highest ideals have not always been striven for, it must be remembered that in developing countries, a process of evolution through crudity to a better condition of affairs is inevitable. Ontario has at least initiated some things worthy of imitation, and along practical lines has been well to the front: non-restraint; the proper employment of patients; training of nurses; isolated hospitals, etc., were developed here early in the day, and in some of these things, at least, the United States had to follow, rather than lead.

The greatest failure has been in the way of developing the scientific side of the work, and while in this respect we have been no worse than many states, there is no reason why, in this particular, we should wish to longer remain in a subordinate position in America.

We cannot afford to lag in the race to achieve a solution of the problem of psychiatry. The demands of modern medicine are inexorable, and we must meet these as fully as possible.

The failure in the past has been the result of misapprehension on the part of Governments—too much attention to the requirements of political exigency, and an impression that what Ontario did was of necessity a pattern for the world to follow. The belief that the duty of the State ended when the chronic insane were comfortably housed and cared for was very prevalant; that they were provided for more cheaply than anywhere in the world was glory enough for some minds. This would be admirable, if it included everything that should have been done; unfortunately it did not. Preventive medicine had little or no place in the scheme, and too often appointments were made to the service without the slightest recognition of its requirements. Fortunately some of the men appointed have proved superior to the hamperings of want of special training and knowledge, but all will, I think, admit that the system is a bad one and has not been calculated to inspire assistants with enthusiasm and industry.

Psychiatry is, after all, very much like any other of the departments of general medicine, and it is scarcely possible to achieve a knowledge of it without a long and intelligent apprenticeship in the Hospital. At best it is a most difficult study, and in the wards of an institution for the insane, as ordinarily administered, opportunities for an acquirement of a thorough training have not been what

they should be. Now it has been a popular method of the general practitioner to decry Governments because they appointed Superintendents without experience, over the heads of Assistants.

The medical profession, as a whole has not been without sin in this matter, and active crusades on the part of general practitioners in behalf of certain favored candidates have not been unknown. Certainly the cause of the trained assistant has not been taken very deeply to heart by the profession as a whole; however, the solution of the difficulty is at hand, and an unpleasant subject may safely be left in the hope that a new order of things is to be initiated. I merely wish to point out that Governments have not been the sole offenders in the development of an abuse so roundly condemned by the profession at large. The profession itself has had something to answer for.

The assistants have really had the greatest grievance of all, and even they have not been beyond criticism, because they went into the work fully aware of what was before them, and it was always their privilege to leave the service, if they were not satisfied with the condition of affairs.

They soon learned that their duties were largely clerical and when they had finished their routine of books, general medicine, etc., there was little time for research. Fortunately some of the assistants have proved superior to their difficulties and have struggled manfully to keep up with the modern trend, although well aware that there was little hope for advancement.

Now all of this was wrong; and yet the day of emancipation is at hand, if the signs of the times mean anything. Just as might have been expected, the Government has awakened up to its responsibility in the matter and has practically said, "We are willing to be guided by competent advice. What must we do—not to follow, but to lead along the lines which seem to be marked out as desirable by modern medicine?"

Fortunate indeed is it that the present Provincial Secretary is a man who takes the broadest view possible of the requirements of the situation, and the cause of psychiatry is not likely to suffer in his hands. Already the spirit of advance is being developed, and if the institutions do not go ahead the fault will rest with those in charge. Assistants have, where desired, been emancipated from clerical work, and encouraged to go on with clinical investigation, and while staffs are yet too small to accomplish all that is wished to do, still a beginning has been made.

Now what are the ideals we should strive for?

My impression is that in Ontario, the policy adopted by the Government is the very best possible to lead to the solution of the problems we could not solve in the past. Let me then for a few moments leave the faults of byegone days and deal with ideals which are to be attempted, I trust, in the near future.

For some years I have felt and contended that psychiatry has had a tendency to dissociate itself too much from general medicine, and our methods have exaggerated the evil. It has not been possible to make plain to the general profession the importance of the subject, and at college the student has had little or no opportunity to come in touch with it practically.

Then again, the treatment of acute cases in Hospitals for the Insane has been attended by many difficulties, although good work has been done in some of the institutions. Incipient cases have generally been allowed to develop at home on account of the dread of the Asylum. Now it is not for me to argue regarding the importance of the Psychiatric Hospital, as its place has long ago been put beyond controversy, even if America has not yet accepted this policy. It has been left for Ontario to take the important step. What I advocate is this : the establishment, as population makes necessity for them, of Psychiatric Hospitals at the University centres : Toronto, Kingston, London. The moment for the development of such a Hospital in Toronto has arrived, and the Government policy seems to be all that can be desired or expected. The establishment of such an institution does not mean that development of scientific work in the large hospitals must cease, but on the contrary it should enable such work to be done far more efficiently than ever before. There should be a most intimate relationship between the Psychiatric Hospital and the other institutions, and they should work in complete harmony in carrying on investigations of the greatest importance.

The Psychiatric Hospital should be equipped in the most thorough manner to treat recent cases energetically and scientifically .

At Munich the theory of the organization of such a clinic is something as follows :

Small size, to enable a complete study of each patient.

A large staff of physicians and nurses.

Well equipped laboratories for the teaching of students and for research work in clinical psychiatry ; psycho-pathology and neuro-pathology, etc.

A dispensary and out door department.

Provision for the study of criminals in whom mental disease is suspected.

While the proposed institution will, if developed, have all these requirements, it will also have several additional functions, if the greatest good is to result. There should be facilities for the training of all of the assistants in the Hospitals for Insane in psychiatry, neuro-pathology, and clinical methods, and these assistants should then be required to give evidence of further development in research work when they are attached to the different Hospitals.

The nursing staff should establish reciprocal relations with the

General Hospital, and the nurses in training in each institution receive in this way mutual benefit. The asylum nurse would get what is lacking her course and the General Hospital nurse becomes proficient in mental nursing, a branch in which she has failed to a great extent in the past.

The University would benefit by having a Department of Psychiatry in which a practical study of the abnormal in the Hospital laboratories would give results not at present attainable.

The problems of psychiatry are so clearly allied to those of general medicine that they can best be studied in a clinic not too far removed from the General Hospital. While it is true that only those who are conversant with mental disease can direct its treatment to the best advantage, it is also true that even they would be benefited by consultation with men eminent in general medicine, as a different point of view is not always without its advantages.

The treatment of acute alcoholics should be undertaken in the Psychiatric Hospital, as these toxic mental cases properly belong to its wards.

The stigma attached to detention in a Hospital for the Insane would no longer prevent the acute and incipient cases coming under immediate treatment; however, the advantages of the Psychiatric Hospital are so well established that it is a waste of time to further dilate upon them. What Germany has done to revolutionize psychiatry is well known.

Now, taking it for granted that in time central clinics in University centres are established and large colonies for the chronic insane developed, it will not be difficult to attain ideals that are at present impossible.

It has been said that with the establishment of clinics the interest in scientific work in large institutions will die out, and they will become nothing more than alms-houses on a large scale. Nothing more erroneous could be promulgated, as the clinical work to be done among the chronics is of just as great importance as that in the Psychiatric Hospitals. Take the scientific work to be developed in connection with general paresis and dementia praecox and paranoia alone, and see what fields for investigation open up. Post mortem research; blood examination; in fact every field in the domain of medicine is within reach. The convalescing insane will frequently make their complete recovery at the hospitals for the insane, where ideal out door conditions are available.

My whole plea then is to have the service put on a scientific basis, every physician in this service a well educated psychiatrist, whose idea must be that he is to do something to advance the knowledge of a difficult branch of medicine. I think that this will best be accomplished by the development of Psychiatric Hospitals, as before detailed, having an intimate relationship with large institutions of the chronic insane and progressive universities.

Discussion.

W. C. Herriman (Kingston).—I am very glad to hear what has been said in this discussion, especially what was said by Hon. Dr. Reaume and Dr. Burgess. Being one of those who have been several years in this department of the public service I appreciate the promise of better things which can be anticipated from what has been said in Dr. Clarke's paper and this discussion. It has been hinted, however, that the Asylums of Ontario are away behind the times. Hon. Dr. Reaume very properly resents this idea. It has been publicly said very recently that nothing is being done in the Asylums of Ontario looking to the treatment and cure of the insane. That there remains much to be done we all admit and great things are about to be accomplished as foreshadowed by Dr. Clarke, but I want to say that if any person makes the assertion that nothing has been done or is being done he simply does not know. To any who have been led to think that such is the case I want to extend an invitation to visit us at Rockwood Hospital, or I am sure he would be treated well in any of the Provincial Hospitals.

T. J. W. Burgess (Montreal).—Mr. president and gentlemen, I thank you most sincerely for the privilege of taking part in the discussions of Dr. Clarke's able and interesting paper. In an address, "The Insane in Canada," delivered at San Antonio, Texas, two years ago as president of the American Medico-Psychological Association, I summed up my remarks by saying, that while with respect to custodial care and ordinary treatment, moral and medical, Canada, generally speaking, was well up to the times, she was doing little toward the solution of the many problems connected with the scientific aspect of insanity, and, in this respect, she presented a sorry picture when compared with the good work being done in many hospitals elsewhere.

With the erection of a Psychiatric Hospital, as outlined by Dr. Clarke, such a reproach can no longer be made, and as a native of this province, I am proud to think that Ontario should be the first to take a step that will place her not only foremost as regards this Canada of ours, but foremost as regards the whole vast continent of America. In praise of the wisdom of the Government for taking such an advanced view too much cannot be said; and here let me tell you that such an establishment will be not only a boon to the most unfortunate of all God's afflicted ones, the insane, but a true economy. Most of you, I have no doubt, know how very prone mental disorders are to become chronic and incurable; and some of you are probably aware that, once the acute stage is passed, lunatics are even more likely than the sane to live to a ripe old age, because protected within hospital walls from so many malign influences But have any of you thought what each thirty or forty

years of lunatic life costs, not only in actual outlay for hospital care but in the loss to the state of the wage-earning power of each insane person. It is simply an enormous sum and if the establishment of a Psychiatric clinic increases the rates of cures by even five per cent., as I feel sure it will do, the institution will more than pay for its cost, no matter how large that may be. For their choice of a superintendent for the new clinic the Government deserves no less praise. To Dr. Clarke we are indebted for our first training school for nurses for the insane, our first isolated hospital for the treatment of the sick insane, and, I think, for our first building for the segregration of the tubucular insane. In the length and breadth of the land no better or more experienced man could have been chosen. I wish I could say the same for the rest of their appointments. To get the best results in our hospitals for the insane all medical appointments thereto should be of men thoroughly trained and experienced in every branch of the specialty, and yet how rarely we see this rule observed. The appointment of outside practitioners to superintendentships for political purposes is a flagrant injustice to the patients, to the taxpayers, and to deserving juniors, of whom there are many in the service. No man should be given charge of an institution for the insane unless possessed of experience in the treatment of the insane, and no junior should be appointed unless he has had special training in psychiatry and has shown a penchant for the work.

I speak freely on this subject, gentlemen, because I myself have gone through the mill. Sixteen of the best years of my life were spent in the asylum service of Ontario, and when time and again I saw myself passed over in favor of some outside man, though the senior for promotion, I thought it was time to quit, which I did. This was of course, under the regime of the late Government. Whether the present one would have treated me any better I cannot say, but I think it extremely doubtful.

Do not think I blame the Government entirely for the wrong done by the appointment of outside practitioners. The men who accept such positions without previous experience are equally blameworthy. As bearing on this point I would like to quote you a few words by one of the ablest writers, himself a physician, in the city of Montreal. They appeared in an editorial, "Insanity and Politics," published in the *Montreal Medical Journal*. In this the author says:—"We yield to none in our admiration of the general practitioner. We are aware of his energy, his resource and his fidelity, but not even the general practitioner will lay claim to a capacity for treating off-hand and to the best advantage grave lesions of the eye and ear, or of the more secret parts of the body. He should adopt the same attitude toward the brain. In time it will come to be a shameful thing for a general practitioner to accept

a position for which he is not qualified, since thereby he is committing a wrong towards his colleagues and towards his patients."

To my mind the ideal asylum service is that which exists in New York State. There, all the superintendents are appointed by the Boards of Management of the various institutions, and must be selected from men who have served at least five years in an institution for the insane, and have proved their capacity by passing an examination for a superintendency. The assistants are appointed by the superintendents, their selection being restricted to the three names first on the list of those eligible for the vacancy. No step in advance can be won unless the candidate has had previous experience in a lower grade of the specialty, and proven his fitness by passing an examination before promotion. In conclusion, gentlemen, I would urge upon the profession that they should combine to right this wrong in the matter of asylum appointments. If only the medical men of this province, as a whole, would say, "We wish the system of the promotion of deserving juniors to be established," no Government dare gainsay them. It is for this Association, representing as it does the very pick of the profession, to set the ball rolling, and I sincerely trust that ere the close of your sessions some steps towards that end will be taken. In this way, better than any other I know of, you will put yourselves in a position to attain the ideals for Asylum work in Ontario, a height to which I feel sure you all aspire to see the service reach.

A DANGER IN ALCOHOLIC MEDICINES.

By W. C. Abbott, M.D.

One of the most difficult cases of alcohol habit the writer ever treated was a man in whom a hereditary taste for alcohol was aroused by a little wine employed to flavor the sauce of a pudding. Seven years' drunkenness followed.

In former years when we employed habitually in practice the elegant wines and elixirs of the pharmacy, we found that some patients would too greatly relish these preparations, and that they were taken as beverages rather than medicines. Many times the patient who was prescribed a bitter elixir to improve the appetite would really partake of less food than formerly, preferring to take a swallow of the medicine instead of eating. Others showed so decided a fondness for the medicine and disinclination to have it changed, that we took alarm and gradually discontinued the use of these seductive preparations.

In view of the popular movement against the making of drug fiends and inebriates surreptitiously, by the taking of alcoholic, opiate and coca nostrums, it seems that we might with advantage look to the clearing of our own skirts. If we believe that alcohol is needed for a case, let us give it as alcohol, and while we utilize the perilous drug in the manner best suited to the case, we need not make it unnecessarily attractive to the unsuspecting patient. Indeed, it would be no more than one's duty to warn them beforehand, and ascertain if there were any hereditary tendency that might be thus aroused. But if the effect desired is merely a tonic one, why employ so dangerous an aid when there are so many better ones that may be administered without this peril?

There is, we believe, not a solitary use to which alcohol may be put in medical practice for which there is not a better remedy to be selected. The value of alcohol lies in its adaptability to so many uses. But we do not have to use one remedy for twenty purposes, when we have one other for each of the twenty that is for that one purpose better than the universal remedy.

It is the indolent doctor who uses opium for all pains, alcohol for almost everything else, who diagnoses nearly all his cases as "malaria," or "uric acid," and shuns the task of accuracy in diagnosis and therapeutics. It is this same indolence that make a drunkard now and then, by careless prescribing. Nevertheless, we admit that a man will sometimes be so busy, and have so many matters of life and death occupying his mind, that he may not recollect to ascertain the possibility of alcoholic tendencies in every new case. It is here that the practice of active principle therapeutics saves us from the awful burden of making inebriates. The little granules are devoid of this danger, and if they should be given in solution it is simply dissolving them in a little water, and not a trace of alcohol is employed.

This may seem to some to be a small thing, not deserving of time and space. To us it is a very grave matter. As we seek to shun even the appearance of evil, so we seek to guide our steps into paths that lead to safety, even in the gloom of night.

Chicago, Ill.

Physician's Library.

Wellcome's Photographic Exposure Record and Diary, 1907. Burroughes Wellcome & Co., London and Montreal, is a neat, chaste, unique production.

The Cure of Consumption with Subcutaneous Injection of Oils is a neat brochure, reprinted from *The Antiseptic*, Madras, India, and written by THOMAS BASSETT KEYES, M.D., of Chicago. Dr. Keyes claims he is offering the greatest therapeutic advance in the treatment of tuberculosis that has ever been made, by the subcutaneous injection of oils which are digested by the white globules of the blood. By such he claims tuberculosis is absolutely curable in every climate and in every country.

The Doctor's Recreation Series. Vol. VII. The Inn of Rest. Divers Episodes in Hospital Life, Relative to the Doctor, the Nurse, the Patient. By SHELDON E. AMES. The series edited by Charles Wells, Moulton. Akron, Ohio, U.S.A.: The Saalfield Publishing Co.

One is quite safe in saying that the editor of this volume has succeeded in compiling a worthy companion volume to the other very excellent volumes which have preceded this. While some selections can be recognized as old friends, there are here set forth several new ones, original in this compilation. The illustrations are five in number. The first is probably the best known—Before the Operation; the second shows Lannec, the Inventor of the Stethoscope, at the Necker Hospital, Paris; the third, Penel at the Salpétriére; the fourth, Ambrose Paré.

Surgical Diagnosis. By DANIEL U. EISENDRATH, M.D., Adjunct Professor of Surgery in the Medical Department of the University of Illinois (College of Physicians and Surgeons). Octavo, 775 pages, with 482 original illustrations, 15 in colors. Philadelphia and London: W. B. Saunders & Company, 1907. Cloth, $6.50 net; half morocco, $8.00 net. Canadian agents: J. A. Carveth & Co., Toronto.

It is difficult, in the limited space at our command, to do full justice to this magnificent work. The view point of the clinician and that of the didactic lecturer are of necessity radically different in many ways; and while we are not prepared to decry the work of the later, in many cases we can't help thinking that the intrinsic value of the former method of teaching is much greater to the

student of surgery. It is "all very well" to describe in detail the etiology, symptoms, treatment, etc., of any particular surgical affection, but it seems to us *all very much better* to describe the conditions as they are usually associated in real life, and from this grouping of associated conditions to differentiate the more important—in other words, to take up the study of Diagnosis as one must in active practice, rather than in an academic manner.

Professor Eisendrath has, to our way of thinking, evolved the most complete and most satisfactory work on the subject we have yet seen. In the preface he says: "An attempt has been made to group injuries and diseases in the manner in which the surgeon or general practitioner must consider them when he examines a patient for the purpose of making a diagnosis. Thus in the chapter upon injuries of the head, the various traumatic lesions of the scalp, skull, and brain are considered together. In the chapter upon the abdomen the injuries of all of the abdominal viscera are taken up in a similar manner."

Again he says: "Being a strong advocate of the teaching of surgery by the education of the eye, I have introduced a large number of original illustrations of clinical cases and specimens." And here we can express nothing but the highest admiration for the profuse number, and excellent character of the illustrations—so thoroughly helpful in explaining the text. Here is a work which is bound to be of great help to the clinical teacher. Those of us who are engaged in clinical work know how hard it is at times to obtain a case which will exactly illustrate some particular phase of a given lesion or its complications. Take a case at random from the large number portrayed in this work: figure 251 shows very clearly a case of Hernia and Hydrocele in the same patient—a condition not met with over frequently, and consequently difficult to demonstrate to the student.

At the end of the work are two splendid chapters, viz., one on Post-operative Complications (Hemorrhage, Shock and Collapse, Pulmonary, Cardiac, Hepatic and Gastric Complications, etc.), and the other on Methods of Examinations (including examination of blood in surgical cases, Opsonins and the Opsonic Index, Newer Methods of Diagnosis of Renal Lesions, etc.).

In conclusion, realizing that our criticism is, at best, only fragmentary, we beg to proffer our heartiest congratulations to Professor Eisendrath on his magnificent work—a work, par excellence, for *the student of surgery*, whether graduate or undergraduate.

Annals of Surgery for June (one dollar).

Never was greater enthusiasm or more strenuous effort displayed by any profession, never were more arduous labors performed, never was more efficiency advocated and never were more

glorious results achieved than in the surgery of to-day. The magnificent advance of this art, so well depicted in the *Annals of Surgery* during the last twenty years, has blazed the way, and made possible the solution of innumerable problems of our associates in other departments of the profession. Truly if the sum total of human happiness is to be measured by the saving of life, then, indeed, should modern surgery be honored and its masters revered.

So well does the June number of the *Annals of Surgery* portray this fact, that the reader is amazed, and ponders over future possibilities.

The June number of the *Annals* will be a remarkable collection of the choicest literature on modern surgery. Each article will be a practical, comprehensive treatise by an eminent specialist who has actually performed the operations described. No expense will be spared to make this the best issue, completing the forty-fifth volume.

The colored illustrations, of which there will be an abundance, have been placed in the hands of the leading medical artists of the country, and will be reproduced to the minutest detail.

Reviews of Books, List of Contributors and a Volume Index complete the book, a work alike creditable to the surgical profession, the editors and the publishers.

The Care of the Baby. New (4th) edition. By J. P. CROZIER GRIFFITH, M.D., Professor of Diseases of Children in the Hospital of the University of Pennsylvania. 12mo, 445 pages, illustrated. Philadelphia and London: W. B. Saunders Company. Cloth, $1.50 net. Canadian agents: J. A. Carveth & Co., Toronto.

"The fourth edition of this excellent work has been revised throughout, and such additions and corrections made as the passing of time and the advancement of knowledge have made advisable." The work is fully up-to-date, and among other new features presents a second appendix on page 425, which is intended to appeal to the lay reader as well as the physician.

A Manual of Personal Hygiene. New (3rd) edition. Proper living upon a physiologic basis. By Eminent Specialists. Edited by WALTER L. PYLE, M.D., Assistant Surgeon to the Wills Eye Hospital, Philadelphia. 12mo, 451 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1907 Cloth, $1.50 net. Canadian agents: J. A. Carveth & Co. Toronto.

If it be true that "The proper study of mankind is man," and that the study of personal hygiene is but indifferently taken up at

school, and still more neglected by the mass of mankind at large, the *raïson d'être* of this volume is amply justified. What an infinitely better investment it would be for the average young person —a work of this kind, rather than some mediocre work of fiction! But youth is youth, and recks little of such an important matter as personal hygiene, until the years are sped, and impaired health forces the serious consideration of the science and art of living properly. The work under consideration is admirably conceived and well carried out.

The American Pocket Medical Dictionary Edited by W. A. NEWMAN DORLAND, M.D., editor "The American Illustrated Medical Dictionary." Fifth revised edition. 32mo, 574 pages. Philadelphia and London: W. B. Saunders Company, 1906. Canadian agents: J. A. Carveth & Co., Toronto, Ont. Flexible morocco, gold edges. $1.00 net; thumb indexed, $1.25 net.

On former occasions it has been our pleasure to speak quite highly of this exceedingly handy book. That it has met with universal acceptation is quite evidenced now that the fifth edition has appeared. The author tells us he has carefully revised the text for this edition, thus keeping pace with the continuous advances in medical literature. The vocabularly is strictly up-to-date. There is a great deal of matter in tabular form which will be appreciated.

Diagnostics of Diseases of Children. By LEGRAND KERR, M.D., Professor of Diseases of Children at the Brooklyn Postgraduate Medical School. Octavo, 542 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Canadian Agents: J. A. Carventh & Co., Toronto, Ontario. Cloth, $5.00 net; half morocco, $6.50 net.

This work is fully illustrated and is the best on the subject we have seen. As the diseases of children are largely, in fact mostly, treated by the practitioner of general medicine we conceive there will be a large demand for this book. It is quite apparent in the perusal of the volume, that one particlar aim of the author has been to keep the book practical. In this he has succeeded admirably. It will prove a great help to those engaged in the practice of general medicine, and greatly enable us all to further qualify and equip ourselves in successfully handling that section of medicine, which, at times abstruse, may now become wonderfully enlightened. That the book is comprehensive and covers the field well is shown in the fact that over 500 pages are consumed, and these pages are not unnecessarily given over to unessential details. We bespeak for this work a warm welcome from the profession.

The Elements of the Science of Nutrition. By GRAHAM LUSK, PHD., M.A., F.R.S. (Edin.), Professor of Physiology at the University and Bellevue Hospital Medical College, New York City. Illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Canadian Agents: J. A. Carveth & Co., Toronto.

The widespread interest in the subject of nutrition at the present time is ample reason for the publication of this work. The author's aim is to review the scientific substratum upon which our knowledge of nutrition rests. Metabolism in health as well as in disease is considered, and special attention is given to the metabolic disturbances that occur in gout, diabetes, myxedema, exophthalmic goitre, phosphorus poisoning, and anemia.

The prominent position which Dr. Lusk holds as an investigator in nutritional processes makes the book all the more valuable.

Manual of Clinical Chemistry. By A. E. AUSTIN, A.B., M.D., Professor of Medical Chemistry and Toxicology in the Medical Department of Tuft's College, Boston. D. C. Heath & Co., Publishers. 1907.

The aim of the author is to write a book on chemistry applied to the study of clinical medicine in a form suitable for the ordinary student of medicine. He does not burden the minds of the readers with matters which are not of direct value in studying disease; but at the same time he takes the student through the study of the elements and constituents of the body.

The first part of the work is devoted to the study of the chemical processes of the body, and of constituents of foods. Then follow chapters on the chemistry of blood, milk, enzymes, and digestive fluids. The concluding portion is principally taken up in describing the clinical methods of examination of gastric contents, urine and feces. Students and physicians will find this work an excellent guide in chemical methods in clinical medicine.

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ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

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COMMENT FROM MONTH TO MONTH.

The 27th Annual Meeting of the Ontario Medical Association has been, its influence still is, its results are to be. Writing after the enthusiasm of immediate attendance upon the meeting has somewhat cooled, one cannot but look upon it as one of the best, if not the best, of recent years. In point of attendance it has been surpassed by but one since the inception of the Association, that of 1889. This was due to the earnest work of those whose responsibility it was to work up an interest in the meeting, and undoubtedly to the personal magnetism of the President.

There were many interesting features about the meeting aside from the papers which were presented. One cannot but consider with favor the manner in which the various papers dealing with the relation of medical men to matters of public interest were received. It indicates a broad and generous citizenship which augurs well for the products of medical education. The moulding of public and professional opinion which comes from the discussion of these matters secures a more harmonious understanding of the basis upon which questions involving these relationships shall be settled. The committee did well in asking Mr. Justice Riddell to discuss the paper dealing with the matter of providing means for the institutional care of the confirmed inebriate. Similar

discussion of the paper upon the care of the degenerate might also have been undertaken with an endeavor to estimate the force of public opinion upon such a matter. The public has a right to concern itself with the question and to aid in solving so difficult a problem.

The papers considering questions of professional interest were many and some exceedingly well presented. We were glad to see the determined effort upon the part of the committee to provide for an intelligent and careful discussion of the papers. Many of the discussions had been written only after thoughtful consideration of the papers with which they were associated and were consequently of as much value as the paper itself.

The address in Surgery by Dr. Crile dealt with a specific subject, an endeavor to establish the position of direct transfusion of blood in the relief of surgical shock, hemorrhage, and other conditions. The talented lecturer, as a result of repeated experiment both in the laboratory and clinically, has demonstrated the fact that with these two conditions, and possibly with others, it offers the most certain relief of any means at our disposal at the present time. His citation of various cases which have been restored after extreme and apparently hopeless conditions, the result of shock and hemmorhage, created the conviction in the minds of his hearers that this almost neglected procedure may be reviewed to the advantage of many patients who would otherwise be lost.

Dr. Ravenel's presence and address upon the etiology of Pulmonary Tuberculosis recalled the famous pronouncement made by the brilliant German investigator at London in 1901, as to the relation of Bovine and Human Tuberculosis. Ravenel, one of the most urgent opponents of Koch's theory at that time, in his paper of May 30th, after a prolonged and cogent argument substantiated by experiment, again claims the truth of his position that a large proportion (very much larger than has hitherto been claimed) of patients with Pulmonary Tuberculosis owe their infection to milk and meat, and that in the absence of intestinal lesion in the recipient or of tubercular processes in the udders of the cows from which the milk was obtained.

Each of the addresses was given scrupulous attention, as their importance warranted.

The Committee on Arrangements outdid themselves in entertaining their guests. Future committees undoubtedly have a standard of excellence set for them which will be hard to surpass. The concert on Tuesday evening was a very enjoyable affair, while the plaudits awarded the members of the committee for the success of the dinner were very general. It is seldom in Toronto that so many able, witty speeches have been made as followed the toasts of Wednesday evening. There was no exception, from the time that his Honor the Lieutenant-Governor opened his lips until the

President declared the list closed, the flow of brilliant wit sparkled and ran to the delight of every one present. May we live to see many another dinner as good.

The Association did itself honor when it so gracefully added to its list of honorary members, for life, the names of Drs. Thomas Tipton Harrison, of Selkirk, and James Henry Richardson, of Toronto. These names have for years stood for rugged, upright, loyal Canadianism, they have been worn honorably before their fellows, both in professional and in the wider field of public life, and none more worthy grace the roll of the Association—

Hail! O Harrison! and unto thee, O Richardson, Hail!

As to the business of the meeting a number of important matters came up for attention, perhaps the most significant of which was the appointment of a committee to report to the Association at its next meeting as to needful changes in the Constitution and By-Laws to make possible affiliation with the Canadian Association and with the County and City Societies, it being a *sine qua non* that the Provincial Association shall be the connecting link between the intra-provincial societies and the Federal Association. The Committee is authorized to discuss the question with the Canadian Association at its next meeting.

Now, the duty to a considerable degree for the success of next year's meeting falls upon Hamilton. Dr. Olmsted, the new President, has been an energetic member of the Association for years. He is held in honor by the profession at large as well as by his fellow members. Every member should undertake missionary work for the year, so that the meeting at Hamilton in 1908 will be to the advantage of all, both in the quality of the work done and in actual attendance. There ought to be at least 500 attending meetings where so many useful papers are presented and so many questions of public weal are discussed. C. P. L.

The American Medical Association engages the whole of the editorial mind of *American Medicine* for May. One did not need to read these editorial paragraphs to know that within the last few years the American Medical Association had attained a mighty influence and standing in the United States, and that it puts forth a journal of which any country's physicians should be proud. Whilst we could not endorse fully its policy, especially as regards proprietary articles, believing as we do, that an association journal should be wholly without advertisements of any description and not in any way advancing the interests of commercial houses of any description, we do believe that it is an ably conducted journal, and could yet far better do its work without a single advertisment. Say that its weekly issue is now 50,000, and its subscription price $5.00 a year, there should be margin enough out of $250,000, if its

members were all truly loyal, to provide for the work of its publication.

"Is Cancer Contagious?" is the title of a reprint kindly handed us by Dr. A. Laptham Smith. The subject of cancer is a broad and liberal one. It is a disease widespread in its destruction of human life. It causes untold suffering. That suffering is mental as well as physical. To make the diagnosis of cancer almost always sounds the death knell. Great numbers die from it annually. Its cause is unknown. Its ravages are known. Dr. Smith's pamphlet preaches contagiousness and scouts heredity. For over twenty years his observations have extended and confirm him in his belief that the disease is contagious. Not content with taking the experiences and observations of men of note, as Shrady, Behla, Thorna, Roswell Park and Gaylord, that the disease was contagious, Dr. Smith went after the rank and file of the profession, and in this way has been able to collect a large number of reports of cases where there was not an atom of heredity in them. Amongt the cases coming directly under his own observation, he found that nine out of ten had a family history absolutely free from cancer. The cases cited are interesting and instructive. One thing we are sure about in cancer: In the beginning it is absolutely a local disease and should promptly be removed by the surgeon's knife, which is better than dallying with pastes and X-rays.

The Calculi found in the human body are biliary, intestinal, pancreatic, prostatic, renal, salivary and urinary. From the standpoint of the X-ray, they are interesting, as not all are opaque nor yet all transparent. Biliary calculi are exceedingly transparent to the X-ray, and there is generally no inconsiderable difficulty in diagnosing their presence. Intestinal calculi are not by any means common. Their composition is such that they should offer some resistance to the passage of the X-ray, though there as yet seems to be few, if any, cases of their determination so recorded. Pancreatic calculi are exceedingly transparent and they are, too, exceedingly rare, the rarest of all glandular caluli. Prostatic calculi are, as a rule, exceedingly small, and as their composition is largely calcium phosphate, they should be shown. To diagnose renal calculi by means of the X-ray is probably the most important part of the surgeon-radiographer's art.

It may be pointed out that in several instances renal calculi have been diagnosed by means of the X-ray, when all clinical symptons have failed, or were absent, except pain. Salivary calculi can readily be radiographed, as they can usually readily be palpated, being generally situated near the orifice of the duct. Probably the X-rays would not often be required in their detection.

Urinary calculi can generally be readily detected by the sound or cystoscope. As there is an element of danger in this method, the X-ray might readily, with great benefit, be employed in determining stone in the bladder or urethra. Large stones can be detected easily; smaller ones, owing to the bones of the pelvis obscuring the field, not so readily.

Were a General Practitioner appointed chief oculist to the Toronto General Hospital, or some other general hospital, one can imagine the meek manner such appointment would be received by the oculists, the specialists already on the staff, men who by special study and training had qualified themselves to treat people with diseases of the eye. We question whether any general practitioner would have either the gall or self-conceit to accept such position, even though a salary of two thousand dollars and free light and fuel accompanied the appointment. Only into the realm of psychiatry can a general practitioner jump at a moment's notice and at once be a specialist, without any special training or education, except that received in the ranks of a political party, in a political caucus, or on the back township concession lines. What a great training ground the political field is for putting forth alienists simply by the falling of the politician's magical wand. Are the assisttants in the various provincial hospitals for the insane in Ontario, some of whom for fifteen or twenty years or more, have made a specialty of psychiatric practice, undeserving of promotion, or are they of such meagre calibre, that the government fails to fulfil its bounden duty to its unfortunate wards, and prefers to place at the heads of the several institutions in the province, general practitioners who lately, and in the past, have taken "a prominent part on the Conservative side of politics." What is the Ontario Medical Council doing, what is the Ontario Medical Association doing, what is the Hospital Association doing, what are the Psychiatrists themselves doing, that this nefarious and altogether ridiculous, if not inhuman practice, is allowed to continue to prevail? To place a general practitioner-politician over the heads of skilled, trained men in this department of medicine is downright scandalous, yes, silly. For a general practitioner-politician, or even a plain ordinary general practitioner, to accept such a position over the heads of specialists is proof positive that he has no clear conception of honor and common decency. The people of Ontario should demand of the government, competent and trained men at the heads of its provincial hospital service, certainly not men whose best and only qualification is that the appointee has taken a prominent part in Conservative or Liberal politics. It is not necessary to here state what special appointment this time we are driving at.

Editorial Notes.

British Columbia Medical Association.

The Eighth Annual Meeting will be held in the Parliament Buildings, August 1st and 2nd, 1907. Dr. R. L. Fraser, Victoria, is the President, and Dr. R. Eden Walker, New Westminster, the Secretary.

Meeting of Canadian Medical Association, at Montreal, Sept. 11th, 12th and 13th, 1907.

The committee on papers and business desire intimation of papers or other matters to be presented at the forthcoming meeting. Papers will be limited to fifteen minutes and are to be submitted to the Committee three weeks before the meeting.

RIDLEY MACKENZIE,
192 Peel Street, Montreal. Local Secretary.

Toronto General Hospital—Department of Immunization and Medical Research.

Types of cases which will most likely benefit from treatment by inoculation.

CLASS I.

Containing those in which the bacterial focus is strictly localized and the disease is of a chronic nature.

1.—*Due to the Tubercule Bacillus* :—So-called surgical tuberculosis: Such as tuberculous dermatitis, certain cases of lupus, tuberculous glands, tuberculous epididymitis and orchitis, tuberculous cystitis, tuberculous peritonitis, tuberculous disease of bones and joints. Also tuberculous iritis, Bazin's disease, sinuses and fistula. Early pulmonary tuberculosis.

2.—*Due to Staphylococcus* :—Boils, acne, sycosis, felons, carbuncules and the majority of "sceptic" surgical processes, such as infected wounds, certain cases of chronic osteomyelitis, etc.

3.—*Due to Streptococcus* :—Certain cases of chronic osteomyelitis; infected wounds, chronic urethritis, certain cases of cystitis, certain chronic septic processes,—puerperal sepsis.

4.—*Due to Pneumococcus* :—Certain cases of cystitis, chronic empyemata, antrum disease, chronic septic processes.

5.—*Due to Gonococcus:*—Acute gonorrhea, chronic gonorrhea, gonorrheal rheumatism.

6.—*Due to Bacillus Coli:*—Infected wounds, chronic cystitis, persistently discharging gall-bladder and abdominal wounds, sinuses and fistulae, pyelitis, etc.

7.—*Due to True and Pseudo-Diphtheria Bacillus:*—Certain cases of meningitis, infected abdominal wounds, etc.

8.—*Due to Typhoid Bacillus:*—Prophylactic and chronic periostitis, etc.

9.—*Due to Micrococcus Neoformans:*—Certain cases of malignant disease.

CLASS II.

Containing those in which the bacterial focus is not strictly localized.

1.—Pulmonary tuberculosis, certain of the more serious septic processes such as follow upon infected fingers, etc.

CLASS III.

Containing the blood infections, septicemias and pyemias: Such as puerperal septic processes, ulcerative endocarditis and pyemias of any variety.

The resources of the department are also available for the diagnosis of medical and surgical cases, especially where tuberculosis of any sort is suspected.

In so far as time will permit, observations will be undertaken upon the coagulability of the blood, upon the contents of the blood in the salts of calcium, upon the alkalinity of the blood, upon renal sufficiency by the method of hemolysis and upon cardiac affections by means of MacKenzie's polygraph.

News Items.

T. W. GREER, M.D., Peterboro, becomes an associate coroner.

DR. W. F. LEWIS, M.P.P., Orangeville, Ont., died suddenly in Toronto, May 25th.

DR. YOUNG, a well-known physician of Vancouver, B.C., was drowned on May 23rd.

DURING the week ending May 25th, Montreal had 75 births more than the ordinary weekly average. The total was 240.

MR. A. MCGILL succeeds Mr. Thomas MacFarlane as chief Dominion Analyst at Ottawa, Mr. MacFarlane having been superanuated (now deceased).

DR. STEWART, son of S. Stewart, of Ruthven, and a graduate of Toronto Medical College, is practicing with Dr. J. W. Brien, Essex, Ont.

DR. AND MRS. GUNN, of Clinton, left recently for a two months' European trip which will include Paris and different parts of Great Britian.

DR. W. T. CONNELL, professor of bacteriology and pathology at Queen's Medical College, has been appointed pathologist to Rockwood Hospital.

DR. H. S. BINGHAM, of Cannington, has disposed of his practice to Dr. Brown, late of Coboconk. Dr. Bingham may join his son in British Columbia.

DR. JOHN F. SNELL has been appointed Assistant Professor of Chemistry in the new Macdonald College of Agriculture, at Ste. Anne de Bellevue, Que.

DR. W. J. GREENWOOD, who has been associated with Dr. Anderson for over a year, has returned to St. Catharines to practice with his uncle, Dr. F. S. Greenwood.

DR. J. L. TURNBULL, formerly of Clinton, is winding up his timber, lumber and saw mill business near Listowel, which will be two or three weeks, when he will leave for Calgary, where he goes into practice with another medical man.

DR. J. J. TEETZEL, of St. Thomas, who has been spending the past six months in the West Indies, is back, and will remain some weeks prior to leaving for the west, where he will spend the summer, with Mr. and Mrs. Harvey, at Fort Steele, B.C.

THE St. Catharines, Ontario, medical men have formed a medical society with Dr. Sutherland, President, and Dr. Armour, Secretary-Treasurer. All have agreed that after the expiration of present contracts there will be no more lodge practice.

DR. EDDIE BRYANS, formerly of Jamestown locality, Huron county, who has been residing in Winnipeg for some time is now practicing physician and surgeon for one division of the Grand Trunk Pacific Railway, with headquarters at Killaly, Sask.

BRIGHT'S disease caused the death on May 29th of Dr. William Claxton, of Verona, aged 60 years. He was born in Frontenac County, and graduated at Queen's University. He was prominent in political and municipal circles, and was a leading temperance advocate, vigorously supporting local option.

A MONTREAL physician has been fined $20.00 or one month imprisonment for failing to register within twenty-four hours the death of a child who had died from typhoid fever. The doctor claimed he had only visited the child once and did not know of its death, which took place on a Sunday, and that he was not in the habit of paying visits on Sundays. The Judge held, however, that it was his duty to have visited the child on Sunday.

THE first meeting of the Academy of Medicine, Toronto, took place Saturday evening, the 1st of June, when the following officers were elected; President, Dr. J. F. W. Ross; Vice-president, Dr. McPhedran; Hon. Secretary, Dr. H. J. Hamilton; Hon. Treasurer, Dr. D. J. G. Wishart; council, the just mentioned officers and Mr. I. H. Cameron, Dr. R. A. Reeve, Dr. H. A. Bruce, Dr. J. T. Fotheringham, Dr. A. A. Macdonald, Dr. H. P. Anderson, Dr. W. P. Caven, Dr. E. E. King, Dr. John Amyot, Dr. F. N. G. Starr, Dr. R. D. Rudolf, Dr. R. J. Dwyer. Chairman of the three sections of surgery, medicine and pathology have yet to be elected. These will be added to the council.

Publishers' Department

THAT NEW ANESTHETIC.—REPORTS FROM THE FIELD.

FAR SUPERIOR TO CHLOROFORM.—The Hyoscine-Morphine-Cactin Anesthetic (Abbott) has been entirely satisfactory. In obstetrics it is far superior to chloroform. No nausea, shock or disagreeable symptoms with the mother. The child is born cyanotic but comes round all right. Our county medical society has taken up the matter; all reports have been very favorable. I think it will have a national bearing in the increase of population, as women will cease to dread the pangs of child-bearing and will increase the number of children born. The nation will owe you a debt of gratitude.—J. S. Dickenson, Trenton, Ky.

TWENTY CASES SUCCESSFULLY.—I have used the Hyoscine-Morphine-Cactin Anesthetic (Abbott) successfully in twenty cases, full reports of which I have kept, as they were all hospital cases.—J. B. Wright, Trenton, Mo.

JUST THE THING IN MISCARRIAGE.—I find Abbott's hypnotic anesthetic just what I have wanted for sometime, and will keep a supply always on hand. In miscarriage, where the placenta must be removed under anesthesia, they are the very thing and relieve the operator of the worry of chloroform or ether. I believe them superior to the morphine and atropine hypodermic, as more lasting and certain in effect.—A. D. Barnett, Guilford, Mo.

NOT WILLING TO BE WITHOUT THEM.—I have not used the H.M.C. tablets in cases enough to make a satisfactory report. But I will say, from the success I have had with them, I would not be willing to be without them.—John Boice, Denver, Colo.

SAVED THE PATIENT'S LIFE.—The H.M.C. tablets have given me great satisfaction and my patients great comfort. In one case of gangrenous appendix, I feel they saved the patient's life, as the patient slept all night, with no vomiting or nausea and practically no shock. In an operation for cystocele and repair of perineum in a very nervous patient, no nausea followed, and the patient was perfectly comfortable at all times. The same results in amputating the cervix and curetting. The patients seem to have no fear of operation when they take this anesthetic. In my medical practice I find it a very useful combination and use it to advantage in some case nearly every day—Marcus A. Newell, Albany, N.Y.

Elliott Business College

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W. J. ELLIOTT
Principal
Cor. Yonge and Alexander Sts.

EVERY PHYSICIAN KNOWS.—Every physician knows full well the advantages to be derived from the use of antikamnia in very many diseases, but a number of them are still lacking a knowledge of the fact that antikamnia in combination with various remedies, has a peculiarly happy effect; particularly is this the case when combined with salol. Salol is a most valuable remedy in many affections; and its usefulness seems to be enhanced by combining it with antikamnia. The rheumatoid conditions so often seen in various manifestations are wonderfully relieved by the use of this combination. After fevers, inflammations, etc., there frequently remain various painful and annoying conditions which may continue, namely: the severe headaches which occur after meningitis, a "stitch in the side" following pleurisy, the precordial pain of pericarditis, and the painful stiffness of the joints which remain after a rheumatic attack—all these conditions are relieved by this combination called "Antikamnia and Salol Tablets," containing 2½ grs. each of antikamnia and of salol, and the dose of which is one or two every two or three hours. They are also recommended highly in the treatment of cases of both acute and chronic cystitis. The pain and burning is relieved to a marked degree. Salol neutralizes the uric acid and clears up the urine. This remedy is a reliable one in the treatment of diarrhea, entero colitis, dysentery, etc. In dysentery, where there are bloody, slimy discharges, with tormina and tenesmus, a good dose of sulphate of magnesia, followed by two antikamnia and salol tablets every three hours will give results that are gratifying.

"SUMMER COMPLAINT."—During the summer months gastroenteric diseases, in which diarrhea is a prominent symptom, are very prevalent, and most fatal in infants and children. After correcting all hygienic and dietetic errrors, an imperative indication is to empty the small intestine and overcome the fermentation and decomposition going on in the alimentary tract. Phillips' Milk of Magnesia, in doses of a tea- to a tablespoonful is a safe and a pleasant laxative for infants and children, and after clearing out the intestinal canal, small doses, five to fifteen drops in a teaspoonful of sterile cold water, every two or three hours, will act as an antacid and gastric sedative, controlling nausea and vomiting, and checking any further gastric or intestinal fermentation. It may be combined with opiates, carminatives, astringents, or antiseptics. The mouths of infants and children suffering from "Summer Complaint" need prompt and careful attention, and this can be successfully carried out by swabbing the buccal cavity with Phillips' Milk of Magnesia and wiping the gums with absorbent cotton or a piece of soft linen moistened with it.

Dominion Medical Monthly

And Ontario Medical Journal

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Original Articles.

RELATION OF THE MEDICAL PROFESSION TO THE PUBLIC.*

By John W. S. McCullough, M.D., Alliston, Ont.

Mr. President, Ladies and Gentlemen,—To me has fallen the honor of addressing you upon a branch of the relation of our profession to the public, under the general heading of Public Health Aspects—embracing: (1) The need of county officers of health. (2) Remuneration for registration of births, deaths, and infectious diseases, and for attendance upon the poor. (3) Compulsory vaccination. (4) Protective organization.

This is an extensive list of subjects, and feeling my utter inability, even if the time allotted to me were much greater, to deal adequately with them, I have merely outlined the various matters, leaving it for you to supply in your discussion the very great deal which may be said regarding these important subjects.

Taking the first topic, that of the need in this province of County Officers of Health. You all know very well that under the present system, there being a health officer in each municipality, or, at least, that the law provides for such, the regulations regarding health matters are often very poorly carried out.

The reason is not far to seek. A physician is appointed to this office. He receives either no salary or, if any, a mere

*Read at a meeting of the Ontario Medical Association.

trifle. He may be zealous to carry out his duties, but receives no encouragement or support from the board of health or the authorities of the municipality, consequently he soon becomes tired of flying in the face of the public, whose good opinion is necessary to his success or existence. As a result, he floats with the stream and the health regulations become a dead letter.

The Provincial Board of Health has had in the past five or six years a great deal of trouble with some infectious diseases, notably mild epidemics of smallpox here and there. It has been found that in many, perhaps the majority of municipalities, very little attention was paid to the necessary quarantine, and that both the province and the municipality concerned have been put to an unnecessary expense and trouble because the epidemics of infectious disease were not stifled in their infancy by a careful supervision of the early cases.

To overcome this difficulty the plan of having a county or district officer of health has been under consideration and has received a good deal of thought, both by the present Board and their predecessors. It was thought that if a county or group of counties had such an officer, whose salary would be such that he would be independent of public opinion, there might be an improvement, in so far as the question of public health was concerned. In the State of Pennsylvania there is some such a system. The State, whose population is about seven millions, and with an area of forty-five thousand square miles, has a commissioner of health (salary, $10,000), appointed for six years by the Governor of the State. Under and responsible to the commissioner are ten district health officers, who are also practitioners in active work, who receive $2,500 per year, and who are each assigned to one of the ten districts into which the State is divided. They are responsible for the oversight of health matters within their districts, and in addition are required to do bacteriological work in the matter of specimens sent to them similar to the work done in the provincial laboratories in Toronto and Kingston, with which you are familiar. This would seem to be a good plan and it is said to work well.

But the conditions in the province are much different. We have an area of 222,000 square miles, with a small population of about 2,192,000. Much of our territory is unorganized and sparsely or not at all settled, except for timber men at certain seasons of the year. To divide this into districts and apportion them to various medical officers would mean a great cost, for which our citizens, who are by no means educated to the neces-

sity of such a system, might not sanction the neccssary expenditure. A medical man competent for such an office could hardly be obtained for less than $2,000 per annum, so you can figure out what the cost would be.

As an alternative for the present, at least, it is my opinion that the Health Act should be so amended that the various medical health officers would receive a decent salary and be held strictly responsible to the Provincial Board of Health for the enforcement of its regulations. What this salary should be, might be based on population. It should be at least $500 for the first thousand of population, with, in rural municipalities, a reasonable mileage in addition, and say $100 for each additional 1,000 of population, up to $15,000 or $30,000. If such were the case a health officer would have some incentive and be under obligation to look after his duties. He would feel that if he enforced a proper observance of the laws upon his clientele he had the backing of the authorities, and a loss of patronage would be made up by a fair remuneration for his services.

As the law exists at the present time it is the old story of "No pay, no work." The public and the public purse are the sufferers.

At the last session of the Legislature there was a bill introduced by the Member for Guelph (Mr. Downey), for the establishment of County Boards of Health, to deal especially with tuberculosis. The Provincial Board had discussed the bill and approved of it, and it was sent to the Legislature so that it might be discussed thoroughly and amended if thought desirable.

Briefly, it was designed to establish County Boards of Health, to consist of the Warden, the County Clerk, who would act as Secretary, and one member sent from each Local Board of the different municipalities.

Under the provision of the bill, power is given to notify cases of tuberculosis, to isolate as may seem desirable, to have the sputum examined, a record kept, to build sanitoria, etc. The measure, as one newspaper described it, is an admirable one and would be easily workable. Unfortunately it did not receive the attention and discussion it merited, and from the remarks made by some of the members, it was evident they had either not read it or, if so, had altogether missed its meaning. The scheme is inexpensive, simple, and would seem to be a considerable advance step in the control of a terrible scourge.

Remuneration for the Registration of Births, Deaths and Infectious Diseases and for Attendance upon the Poor.

According to law, a medical practitioner is compelled, under a severe penalty, to supply the Clerk of his municipality, who is the division registrar, with the necessary information regarding vital statistics. He may be, and sometimes is, fined for neglecting to do so. There is no fault to be found with such a law. It is right and proper, but, while the division registrar receives a fee for registration we supply the facts and get nothing for it. Practising lawyers, judges of the various Courts, the Crown Attorney of your County, all receive fees for various legal papers not more important, but we, simply because we have not made our influence felt amongst our lawmakers, do all these things gratis. Do you not think it time for a change? If we fill out a certificate for an insurance company, without which the beneficiary of a deceased person is unable to receive the amount of an insurance policy, do we get anything for so doing? Not a cent! You will not find our legal brethren doing anything so foolish. They are able, under the law, to collect good fees for work of a similar character. One often hears the remark, "There are too many lawyers in Parliament." This may or may not be true, but there are certainly too many doctors both in and out of Parliament who seem to have no interest in the welfare of the greatest profession of them all.

Then in the matter of the treatment of the poor. Our profession is not mercenary. We can never be justly accused of want of charity except to ourselves. The public seem to think that the fact of one's being a doctor implies that he is rich. When I was a boy I thought something similar. The illusion has vanished.

How frequently do you see the poor family or families whom you have attended gratuitously year after year, supported by the municipality, in every necessity except the doctor's attendance and medicines? The butcher, baker and other tradesmen present their bills to the Council of your town, and are paid. If you have tried to collect yours in a similar manner, have you ever remarked the scorn with which it was thrown out?

It is sincerely to be hoped that you may be able to initiate some plan whereby the injustice from which our profession suffers in these respects may be remedied, and that we shall

be placed upon a proper equality with other citizens. We have been content in the past to receive for our services almost what the public cares to give us and at such time as it pleases them. A little more infusion of business principles in dealing with people is a great necessity amongst us.

Compulsory Vaccination.

Vaccination in the Province of Ontario is nominally compulsory. The law says:—

Every child born within the province shall, within three months after birth, be vaccinated either by a qualified medical practitioner or by the person appointed by the municipal council for that purose.

Every child over the age of three months becoming a resident in the province is required to be vaccinated.

The certificate of vaccination cannot legally be given until the eighth day after vaccination has been performed.

If in the opinion of a medical practitioner, a child is found unfit for vaccination, a certificate to that effect remains in force for only two months. In any case the child must be presented every two months to permit of renewal of certificate, otherwise the child must be vaccinated.

Re-vaccination within seven years may be required, when deemed necessary, from students in attendance at high schools, collegiate institutes, colleges and universities.

Re-vaccination within seven years may, under certain conditions, be made compulsory in any particular municipality or throughout the province generally.

Authority is given to the councils of all municipalities to enforce the foregoing provisions of the Act, and upon them necessarily rests the responsibility.

An example of how the Statute is made inoperative is in evidence in the city of Toronto where, last year, the enlightened (?) Board of Education repealed the law in respect to vaccination in the schools. One of the most influential journals in the city thus refers to the matter:

"Vaccination in the Schools.

"It is a reflection on the intelligence of Toronto that vaccination in the schools is not compulsory. There should, at least, be an attempt to repeal the reactionary resolution which the Board of Education adopted a year ago. We may admire the zeal and respect the motives of the anti-vaccinationists, but

there is too much at stake for us to submit tamely to their authority. There is danger that if we persist in the policy of non-vaccination some future epidemic will enter with such deadly effects into our schools, factories and great business establishments that our growth will be retarded, our industrial interests imperilled, and our trade connections broken for a decade."

The city of Montreal had its lesson. There in 1875 there were antivaccination riots, and as a consequence most of its younger population were left without the protection of vaccination. In 1885, smallpox was introduced from Chicago. It landed upon a fertile soil. Three thousand one hundred and sixty-four persons died of the disease; of these, 2,717 were children under ten years of age! While the fearful loss of life was by far the most serious matter, there was, in addition the ruin of the city's trade and the loss of millions of dollars. History has a trick of repeating itself, and who can say that Toronto or any other place, whose rulers are so culpably and wilfully ignorant, may not suffer in a similar manner. The value of vaccination has been so often and thoroughly tested that it seems nothing less than criminal that the existing laws are not strenuously enforced. Fortunately for our people, the epidemics of smallpox which we have had in Ontario for the last five or six years have been of a mild character, and thanks to the vigilance of our health authorities have been vigorously stamped out, but the cost has been considerable. Of the total sum of two hundred and ninety-one thousand dollars ($291,086.48) spent by the Province for health purposes in the last twenty-five years, $49,270.71 was expended for the control of smallpox, and this but represents a small portion, because the greater portion of the cost has been borne by the various municipalities involved. For example, in my own town, five cases cost in the neighborhood of $800, not to speak of the loss of trade which existed for months. This is but the usual experience of hundreds of places throughout the province. A thorough vaccination and re-vaccination would ere long stamp out the disease if we are to be guided by the experience of other countries which have an efficient compulsory vaccination law. It is not necessary nor is it my purpose to argue the value of vaccination. No man, who has studied the question impartially and examined the evidence can have but one opinion on it. The anti-vaccinationist will neither see nor tell the truth, will neither listen to argument nor be convinced by any evidence, no matter how strong. The only way to deal with such a man

is to let him have smallpox if he wants it. Here the law should step in and prevent him giving the disease to others, including his own children, by enforcing thorough vaccination and re-vaccination. We, as medical men, as members of this important society, as members of a profession which has done something worth mentioning in the prevention and control of disease, as followers of that immortal man whose discovery has reduced the death rate of smallpox 72 per cent., should make whatever influence lies in us felt in the matter of the protection of our children and the children of the nation against a preventible scourge. The hope of the future in this respect lies in the enforcement, without regard to sentiment, and in defiance of wilful ignorance of the law regarding compulsory vaccination. Because the death rate in our country has in recent years been small from this disease, even in the presence of a considerable number of cases, we have no security that we may not sooner or later have a deadly form of the affection amongst us. This rising nation has a right to claim from us who are entrusted with their physical welfare the adoption of any and every measure calculated to ensure them, in a land teeming with a multitude of God's blessings, the greatest one, that of good health. If, therefore, lives are lost by reason of smallpox, or personal and municipal losses of a financial character result, through failure to carry out the wise provisions of the Act, the blame and loss rests with those failing to comply therewith.

Protective Organization.

The frequency with which malpractice suits are brought against members of our profession, the fact that they are often without foundation and that such claims are generally made by parties financially irresponsible, are strong arguments in favor of some form of protective organization.

In the present state of affairs any worthless individual may institute an action against one of us, and no matter how innocent we are, no matter how unjust the action, no matter if we win our case, we are saddled with an enormous bill of costs, and because of the usual worthless character, financially, of the plaintiff, we have no redress. One of the advantages of a thorough organization would be to deter such actions, another would be to bring pressure on the government to so amend the law to provide security for costs. The profession in this province has most unjustly the reputation of being so well organized that the Press calls us a "Close Corporation." In this, at

least, the Press is quite misinformed. We are the loosest kind of a corporation. The patent medicine man, the manufacturers and even the Press are pretty well organized, but, alas, for the medical men, they have no real organization at all. It is high time they had, and if they are going to stand any chance in the onslaught against them by Osteopaths, Christian Scientists, and all sorts of fakirs who desire to get into the practice of physic by some easy route, they will need to organize without much delay. At the risk of departing from my subject, I wish to refer to the practice of the Legislature, of giving entrance to the ranks of not only the medical, but to the other professions by Act of Parliament. There have been some flagrant abuses of this matter. We ought to impress the injustice of it upon members of the Legislature with whom we are acquainted, and endeavor to show them that there should be only one road to the ranks of this profession, the one we have all travelled and which is no "Royal road."

There is a feeling of security and strength in organization. It provides a sort of bond amongst us. It causes one to feel that, if attacked, he is not fighting alone, but that he has the moral as well as the financial backing of his professional brethren behind him. No one of us knows the day he may be attacked by an unjust prosecution, therefore it behooves us, one and all, to take such precautions as we deem expedient in view of the evil hour.

At the 1900 meeting of the Canadian Medical Association, the then President, Dr. R. W. Powell, of Ottawa, said in the course of an excellent address:

"It must be understood and published broadcast that our profession is too sacred a thing to allow it to be trampled upon with impunity. Actions for malpractice will surely continue, and if deserved cannot be defended; but unrighteous and unholy suits of this kind must be fought unhesitatingly and unsparingly, and when the public know that they cannot frighten a doctor into paying up hush money, but rather that he will be backed up and supported by his brethren, and their action bring down on their own heads publicity and shame and redound in the long run to the credit of him whom they are trying to disgrace, such actions will be few and far between."

It was, perhaps, a direct result of this address that the Canadian Medical Protective Association was organized at Winnipeg in 1901. It is an association of the right kind.

In 1902 it had 242 members, and last year the membership

had increased to 471. The object of this Association is to protect its members from prosecution where such action appears to the Council and Solicitor as well as the committee in charge to be unjust, harassing or frivolous.

The Association will not defend actions of malpractice if, in the opinion of the Solicitor and Committee, the member is at fault, nor will it pay damages if the verdict is against a member, but if it decides to defend a case it will fight it through all the courts if necessary until a final or correct judgment is obtained. So far the Association has been singularly fortunate. A number of actions have been defended. The majority of them have either been withdrawn or collapsed, and those cases which have gone to trial have been contested successfully in every instance.

The fee of $3 is very small, considering what an advantage it may be to have the assistance of such an Association. At the last report there remained a substantial surplus.

This Association merits the co-operation of every medical man in Canada. Instead of four hundred and seventy-one members there should be three or four thousand. In unity lies strength, therefore let us unite.

It has been suggested to me that if the various medical councils throughout Canada would charge a larger fee and then give their resident members a certificate of membership in such an Association, they would be doing a great good to the profession. It is a matter of regret that the medical council of this Province has not always been as popular as it should be with the profession, but some such action might increase their popularity and usefulness. There may be some difficulties about it, but they should not be insurmountable.

I hope, sir, that the members of the Medical Association present will freely discuss the topics briefly touched. I feel that they are all most important and, while my ideas are crude, they are not regarded by the speaker as anything more than to awaken the thoughts of the members of this Association and evolve their opinions.

Discussion.

Dr. Hall (Chatham).—I venture to say that we have all listened with great interest to the splendid paper just read by my colleague of the Provincial Board of Health, Dr. McCullough.

Any one of the four subjects dealt with would furnish a

topic sufficient to occupy the full time allotted to Dr. McCullough, and I congratulate him on having dealt with and presented the four so concisely and so fully in the time allotted him.

It is my intention to confine my remarks to the first subject presented by him, viz., the need of County Officers of Health. Is there any real need or necessity for a change in our present methods, our present Health Act and regulations? Dr. McCullough has expressed the opinion that there is, and has fortified his opinion by many strong arguments.

Scientific and connected health work is practically the growth of only half a century. The present Health Act was brought in force in 1884, the year I first received my appointment as Medical Health Officer for the city of Chatham, and I have filled the position continuously since that date. When the Act was passed health work was in its infancy. The Province of Ontario, by its passage, showed that she was not behind any other province, state, or country. It was a good Act, and was fully abreast of the times, of public opinion and scientific knowledge; but times have changed, we are living in the 20th century—scientific knowledge has greatly advanced. Tuberculosis has been added to the list of contagious diseases—consumption, the white plague, which destroys more lives in Ontario than all other contagions put together. The list of contagious diseases has been widened and is still widening. Theories about the economic treatment of sewage have been superseded by the septic tank system; diphtheric antitoxin and other serums have been introduced. We are 23 years ahead of the Act, and we have had 23 years to study out its defects, and we believe one of its defects is the appointment of Medical Officers of Health in rural municipalities. Let me state concisely some of the reasons which occur to me:

1. In many cases Medical Health Officers are not appointed at all. There are 745 organized municipalities, including the territorial districts; in 1898, only 479 of these had Medical Health Officers appointed; 568 had Local Boards of Health appointed; 30 per cent. of the Medical Health Officers received a salary, 60 per cent. were paid for specific work done, and 2 per cent. were not paid at all; 266 municipalities had no Medical Health Officer.

2. In no municipality in Ontario, except a few cities, is the salary large enough for a Medical Health Officer to devote any time or attention to the matter. It does not pay him to

prepare himself for the work; and, gentlemen, you all know he is not prepared for it in his ordinary college course.

3. The work the Medical Officer has to do necessarily brings him into conflict with many people, and if he does his duty, he is sure to antagonize and make enemies of the very people whom he wishes to be his friends and patrons, the very people in many cases on whom he has to depend for his livelihood. If this be true, in handling smallpox, diphtheria, scarlet fever, etc., how much more, I leave it to you, will it be if precautions are enforced, as I think they should be, to check the spread of consumption.

To accomplish really effective work, a Medical Health Officer should devote his whole time to it, and should have, in addition to 5 to 10 actual general practices, because it is necessary that a health officer should be an expert in diagnosing contagious diseases. He should have a special training for his special work, a training that can be acquired easily by any medical practitioner. Only a few municipalities in all can afford to pay a sufficient salary to have a man do this, and the work to be done is not sufficient to engage his time exclusively, so the area of his work must be enlarged, whether it be an electoral division, a county, or a group of counties.

The appointment and dismissal of Medical Health Officers should not be in the hands of municipalities or county councillors; they are not judges as to the kind of service rendered and, very often, opposed to carrying on the very work most required to be done. Very often they are not in sympathy with the work.

In our present requirements respecting contagious diseases, too much of the hardship and expense of protecting the public falls on the individual, the victim of the contagious disease.

A man, say from Toronto, contracts smallpox, whilst doing business, say in Aurora. He can't come home. The Medical Health Officer puts him in an isolation hospital, engages a doctor, a nurse, a cook, and heat, light, fuel, etc., keeps the man confined for six or seven weeks, with all the above mentioned expenses going on, to protect the public against him, and if the man is able, the law compels him to foot all their expenses for the public protection; he is only sick for twelve or fourteen days and, as far as he is concerned, could resume business after that time. A few visits from a physician would be quite sufficient, as far as he is concerned, and his wife could come and nurse him. He is compelled, if worth it, to pay out $1,000, say $50 for himself and $950 for the public. Is this right?

The city of Chatham had a considerable number of cases of smallpox last winter, of a very mild type. It was urged on me as Medical Health Officer that on account of the mildness of the cases, and the sore arms from vaccination, and the great expense incurred by isolation, etc., it would be cheaper and better to stop all precautions, and let the rest of the susceptible people take the disease. I said no; admitting it would be better and cheaper for Chatham, the rest of the county must be protected. Let the county do the same, they said. I said no; the matter concerns the whole province—so it does. The individual pays to protect the municipality, the municipality to protect the county, the county to protect the province.

Is it not a fair proposition, that the municipality should pay the individual expense in excess of that for an ordinary illness? Should not the county pay for being protected by the municipality, and should not the government pay for the protection the province receives? The expense for protecting the public should be fairly apportioned between the province and each of its divisions. The place to stop an epidemic is at the very start, so all the people are vitally concerned in the first outbreak in every instance.

They should provide for the appointment and control of County Health Officers, dismiss them for cause, and also pay a portion at least of their salary. Respecting the Pennsylvania plan of Divisional Health Officers, I am informed that it works out well and is worthy of study and consideration.

A Medical Health Officer should be a competent man. He should be required to keep himself engaged constantly in the work, and the territory allotted to him should be large enough to meet the requirement, whether it be an electoral division, a county or a group of counties.

The Province of Ontario should be fully abreast of the times in all health matters, and can be. The Provincial Board of Health are very anxious that it should be, but they cannot move faster than the public will allow. You gentlemen are the educators of the public in matters sanitary and hygienic, and the health enactments, after they pass through the Legislature, will reflect your precepts and teachings to the public.

Dr. Oldright.—Symposium on the Profession in Relation to the Public. I desire to move a resolution in connection with this subject, and to give a few reasons for it. The resolution is as follows:

That the Committee on Public Health be requested to take

such steps as may best conduce to advance the organization of a system of County Medical Officers of Health.—Carried.

Why should we have County Medical Officers of Health? By having the large field of a county, or, if necessary, of a union of counties, a sufficient salary can and should be given an officer to enable him to devote his whole time to the work, and to be independent in the performance of his duty. The salary voted by the County Council can be supplemented by fees for laboratory work, examining sections, cultures, or for practising physicians and surgeons. The University of Toronto has provided a curriculum leading up to the Diploma of Public Health, but there have been no candidates. Why? There is no encouragement for men to prepare themselves by taking the course. Those who read attentively the columns of the *British Medical Journal*, or who come in contact with English practitioners, must be struck with the greater prominence and greater professional interest existing there in public health work. One reason why matters such as those referred to this afternoon do not receive from the general public the attention they deserve is this: To the medical profession the correct position is so self-evident that they forget that the public need to have them explained and proved to them. Take for example the matter of vaccination in connection with the schools, and the action of the Board of Education of Toronto. Those opposed to vaccination, some of them conscientious but ill-informed, had the room packed with their supporters, whilst the correct view was represented by only one medical practitioner outside of those who were members of the Board of Education. The speaker urged the members of the Association to explain these matters to their representatives in parliament, and other representative persons, and to press them upon their attention. Such persons are desirous of understanding these matters rightly, and many of them are desirous of acting rightly on them, but they require to be informed and convinced regarding them.

Dr. Harrison (Selkirk) —Made a few remarks as to the necessity not only on the question of legislation, but of educating the people as to the necessity of educating the people to the necessity of adopting and carrying out the rules of public health. That the great mass of the people are lamentably ignorant of its necessity.

Beverley Milner.—We have heard a great deal concerning the attitude of the public in the matter of compulsory vaccination owing largely to the number of infected arms follow-

ing vaccination,' but have overlooked the one great cause of such infections in which we must take our share of the responsibility. If the physician, when vaccinating a patient, be careful to ensure absolute cleanliness, and instruct the patient or parent how to care for the arm, and the necessity for carrying out his instructions, there would be an end to infected arms and, consequently, an end to the foolish talk of the anti-vaccinationist.

ALBERT A. MACDONALD.—Referred at first to the question of remuneration of medical officers of health, saying that their services were and are of inestimable value to the public, and that such services should be paid for in a suitable way, and that the figures named are away below what they should be. With regard to vaccination, one who has gone through epidemics of smallpox has no difficulty in making a diagnosis. Dr. Harrison has put it well when he made the remark that a severe case could be seen, felt, smelled and tasted. I do not believe that one can readily forget the offending nature of the disease. It is not necessary in an enlightened audience such as this to discuss the "efficiency of vaccination," but I would regret very much if the expression of one of the former speakers (a member of the Board of Education of Toronto), should go without notice. I should be sorry to have the opinion go abroad that the Ontario Medical Association is in accord with the opinions expressed by Dr. Hunter. You all know the value of vaccination, and by your applause I take it that you favor it as I do. Dr. Milner did well to call your attention to the harmful effect of carelessness in vaccinating and in subsequent dressing. If you take ordinary care and apply the rules of aseptic surgery to the little operation of vaccination you will never have untoward results.

JOHN HUNTER (Toronto).—I wish to refer to one phase of the writer's paper when he spoke sarcastically of the action of the Board of Education of Toronto, *re* the rejection of the clause insisting upon the vaccination of school children. In regard to the Board, so far as I know, the great majority are in favor of vaccination. The reason why eleven out of the twelve members voted against compulsory vaccination were these: There is a law, on the statues, requiring the vaccination of every child under the age of three months. The members of the Board of Education believe that the Government should enforce this regulation, as at that age the arm of the child could be protected, whereas in children attending school their arms are exposed to all manner of injury from their playmates.

The Government has all the machinery necessary to enforce its regulations, and therefore it should not be thrown on school boards to do police work. Again, the apathy exhibited by the laity towards the value of vaccination is largely due to want of knowledge. Medical men of the city showed no zeal whatever on the subject. Hundreds of anti-vaccinationists attended the Board meeting when the question was under discussion, whereas only one medical man put in an appearance. Hundreds of children were withdrawn from our public schools and sent to private schools, over which there is no state supervision whatever, when compulsory vaccination was in force. Since the repeal of this clause, most of these children have returned to the public school. It is the duty of our profession to educate the people on this question, and when we have done so there will be little need for compulsory vaccination. Parents will have their children vaccinated and re-vaccinated as a matter of safety.

CONGENITAL UMBILICAL HERNIA, WITH REPORT OF A CASE.

By A. E. McColl, M.D., Belleville, Ont.

According to Blake, in the Reference Handbook of Medical Science, hernia is a term used to denote a protrusion of a viscus from a cavity in which it is normally contained.

Congenital umbilical hernia is, therefore, not limited to those cases in which there is implied a pouching of the abdominal wall or cord, forming a sac for the displaced contents, but includes all those cases of congenital protrusion of the abdominal contents, whether inclosed by a sac or not.

Congenital umbilical hernia is a protrusion of more or less of the abdominal viscera, situated at the umbilicus, and present in children at birth.

Cumstan classifies congenital umbilical hernia, according to the time of development, into two classes. First, those that develop in the embryo. Second, those that develop after the formation of the umbilical cord.

In the earlier months of intra-uterine life a great part of the intestinal canal of the embryo lies without the abdominal cavity, and is gradually drawn in as the abdominal walls develop. If

arrest of development of the abdominal walls takes place, then part of the viscera are never enclosed. This is one variety of embryonal hernia.

In this form the viscera may be free in the amniotic fluid, or may be enclosed by a thin membrane, the primary membrane of Rathke. There is no peritoneal covering, as that develops with the abdominal wall.

If these eventrations are large, the children are usually dead at birth, or die shortly after. There is very frequently some other congenital malformation accompanying it, as imperforate anus, etc. Another variety of embryonal hernia is due to the partial persistence of the vitelline or omphalo-enteric duct.

The duct for a time is normally pervious, but finally loses its lumen and becomes a fibrous cord passing from the umbilicus to the ilium. If this duct does not close, then it becomes a diverticulum of the intestine, opening in the ilium, and extending into the cord. It is usually about the size of the gut at the ilium, getting smaller at the blind end in the cord. This variety, from the nature of its formation, is irreducible. Sometimes the duct is closed at the ilium, so that when the cord drops off a blind fistula remains.

Another variety is when a loop of intestine is retained in the cord. At a certain stage of development, according to Mall, a great amount of shifting takes place in the embryo, from the head to the tail, and the liver rapidly enlarges. This forces back some of the intestine into the cavity of the umbilical cord. At a later period, on account of the rapid development of the lower part of the body, the peritoneal cavity becomes larger, and the intestines are drawn back to their place. At this time the omphalo-enteric duct becomes atrophied, stretches out and breaks under tension, and the last loop passes into the abdominal cavity. If the atrophied duct should be short and thick, it holds the last loop in the cord, to which it becomes adherent. This loop may extend quite a distance in the cord, and is also irreducible.

These two varieties are usually small and frequently overlooked. Fatal results have followed an inclusion of this form of hernia in ligature of the cord.

The second class include those hernias which develop in the fetus after the abdomen has closed and the cord is formed, and are called fetal hernias. At this period the intestine is free from the omphalo-enteric cord and the parietal peritoneum is complete. Consequently, in their formation the peritoneum is pushed in front, and a true sac is formed. As this form appears after the

abdominal walls have enclosed the viscera, it really is an acquired hernia, though present at birth. It dissects into the tissues of the cord, which are spread over it and form a second covering which is continuous with the skin. They vary greatly in size and may contain the greater part of the abdominal viscera. The liver, in part, is present in a large proportion of the cases. The contents may be seen through the coverings during the first hour or so after birth, until the outer layer dries out and becomes opaque. The two coverings may be separated in places by Wharton's jelly, or may be quite adherent.

As growth is very rapid during fetal life, a very slight difference in the rate of growth of the viscera to that of the containing wall would soon produce undue abdominal tension and cause a hernia. In nearly all these hernias the abdominal walls are much thinner than usual, as if having been subjected to a gradual process of stretching.

Congenital umbilical hernia is very rare. Lindfors, of Munich, in a record of over twenty thousand births, found one in five thousand cases.

In the cases collected by different observers, the number of boys was much greater than the number of girls.

The diagnosis is, as a rule, easy. The only kinds that present any difficulty are the small ones in the base of the cord.

A number of cases are recorded in which the ligature on the cord has included a hernia which has resulted in either a fecal fistula or death, if a loop was included. They can usually be recognized by bulging at the base of the cord when the child cries, and cannot be made smaller by stripping the cord.

Urinary omphalocele may be distinguished by containing fluid and by its transparency.

With a view to treatment it is important to distinguish the various forms. To distinguish a diverticulum from a loop may be very difficult. If the bulging in the cord is very small it is probably a diverticulum. Rolling the cord between the fingers may aid. The fetal class has two coverings and Wharton's jelly, while the embryonal form of the first class has only a thin membrane, if covered at all.

The prognosis, on account of more active surgical interference, has become very much better than formerly.

Irreducible hernias are usually beyond treatment, except the omphalo-enteric forms, which may be relieved by operation.

In a large proportion of eventrations there is some other defect of development, that adds to the gravity of the case and may be incompatible to life.

The fetal forms, if not too large, afford a very favorable prognosis. Cases of spontaneous cure have been recorded, but they are very few. Macdonald cites 12 cases treated by compress, of which 9 died; 19 by laparotomy, of which only 2 died.

Of cases collected by Safford, 64 were treated by laparotomy and suture, with 65 per cent. recoveries. 1 by simple ligature, recovery; 5 by Olshausen's method, all recovered; 15 cases expectantly, one-half recovered.

Operation should be undertaken without delay, as the coverings very soon dry up and break down. As the patient is so young, every possible care must be used to prevent shock, and the operation should be limited to the shortest time possible.

A number of operative methods have been proposed, but nearly all of them deal with the fetal forms, and will be referred to later. In eventrations or those covered with a thin membrane, the only operation is to incise a piece from the border throughout and close the opening. Lateral incisions may be used to assist in closing the opening.

In the second variety of embryonal hernias, if a small diverticula be present in the cord and the diagnosis is certain, it may be treated by ligature and cautery similar to treating an appendix. If a large diverticulum be present, or a loop of intestine be adherent to the cord, then laparotomy is indicated. If it proved to be a diverticulum, probably the best method of treatment would be resection and closure of the stump with purse-string ligatures. If an adherent loop of intestine be found, then resection and anastomosis is out of the question in so young a patient. I would suggest the following method. Make an incision around the umbilicus, and free the cord and included intestine from the abdominal wall. Remove redundant tissue from the cord. If possible, split the cord between the two parts of the loop and thereby straighten it out, but in any case drop the loop with the cord tissue attached into the abdominal cavity and close the opening. The tissue would absorb and release the loop. In similar cases, that have been treated expectantly, death has not resulted from strangulation, but from peritonitis after the cord has fallen off and left the intestine exposed. Therefore the danger from strangulation would not be great.

In the fetal forms a peritoneal sac is present. They are nearly all reducible if the abdominal cavity can hold them.

Various operations have been suggested, and they may be divided into two classes: first, those in which the peritoneum is not opened; second, those in which the abdomen is opened and the peritoneal sac removed.

Of the extraperitoneal methods, Olshausen's is probably the best known. He made an incision through the skin very close to the edge of the hernial ring, incising all tissues but the peritoneum. This ring of skin, with the outer covering of the hernia, were separated from the peritoneum, working from the circumference to the centre. The hernia, with its peritoneal sac, was then reduced, and the opening closed with sutures that did not include the peritoneum.

Dhorn separated the outer covering from the peritoneum before making the skin incision. Others have removed triangular portions of skin from above and below the hernia, in order to get better approximation.

Of the methods where the peritoneal sac is removed, the variations of technique relate to modes of suture and methods of forming flaps to properly close the abdominal opening, similar to those proposed in umbilical hernias in adults.

In September, 1905, I encountered a large hernia of the fetal type in a male infant weighing about nine pounds. The child was perfect in every other respect. The hernial ring was three and a half inches in diameter. The sac protruded over four inches above the abdominal wall, and was slightly transparent. The cord proper began below and to the left of the apex of the tumor. About one-third of the intestines was in the hernia.

Nine hours after birth, with the assistance of Drs. Gibson and Boyce, I performed the following operation.

I began by attempting to separate the outer covering from the peritoneum. It proved rather difficult to carry out, and was abandoned. The detached part of the outer covering was removed. When the cord was cut the artery retracted, and a ligature had to be applied *en masse*. An incision was then made through the skin one-fourth of an inch from the margin of the ring, completely encircling the hernia. The tissues were divided to the aponeurosis of the oblique muscles.

This ring of skin and tissue was removed with curved scissors. The sutures were introduced, care being taken to include the aponeurosis.

After the sutures were introduced, the hernia was reduced and the abdominal walls brought together. The breathing of the infant immediately became labored. The hernia was then partially released and the anesthetic stopped. Closure was then completed gradually. The usual dressings were applied and the abdominal wound was supported by wide adhesive straps that went completely around the body, crossing in front and extending

to the sides. The wound was examined on the third day, when it was found that the two middle sutures had cut through, leaving an opening about an inch long. The bottom of the opening was covered with granulations and loose white flakes, the remains of the outer membrane.

The opening contracted rapidly and was closed in about ten days. For the first few days drop doses of chlorodyne were given as a sedative. The abdomen was supported by adhesive strapping for about two months. Since then a support has not been necessary, and at present the scar seems as strong as any other part of the abdominal wall.

The child is now over two and a half years old and has not been ill a day. The abdomen is somewhat more prominent than it ought to be, and the walls slightly thinner, but strong.

From this experience I may be permitted to draw the following conclusions:

If, after reduction of a fetal hernia, the edges of a ring can be easily approximated without undue tension, then abdominal section and removal of the peritoneal sac would be the quickest and easiest and most effective method of dealing with it.

If the edges of the ring cannot be approximated easily, then extra-peritoneal methods are more likely to give good results. Even if the opening on the abdominal wall be so large that partial closure only can be effected, still, with the aid of proper abdominal support, cicatricial contraction will soon close the opening.

It is not necessary to take up too much time in attempting to remove the outer membrane, as it will absorb or at least give no trouble if drainage is insured. As the abdominal walls are usually thin and weak, lateral incisions would only increase the general weakness of the abdominal wall. It would be preferable to leave large central openings to heal by granulation than close by the aid of lateral incision.

Flap methods of closure would seldom be feasible, on account of the time necessary for their performance and the difficulty of dissecting the thin abdominal wall.

Discussion.

Dr. Primrose recorded two cases, one of which was that of an infant four days old, weighing 3 1-2 lbs, with a large hernia into the cord. The child exhibited very little vitality. The pulse could not be felt, and the fontanelle was flaccid and showed no pulsation. The hernia was dumb-bell shape and extended from

over the sternum to the symphysis. It was covered by amnion. An incision was made and the contents of the hernia were found adherent to the coverings. The abdominal cavity was too small to receive the hernial contents. The case was considered inoperable, and the child died when 40 hours old.

THE AFTER TREATMENT OF ABDOMINAL SECTIONS.*

By A. Lapthorn Smith, M.D. M.R.C.S. (Eng.)
Fellow of the American, British, and Italian Gynecological Societies; Surgeon-in-Chief of the Samaritan Hospital for Women; Gynecologist to the Western General Hospital, Montreal, and to the Montreal Dispensary; Consulting Gynecologist to the Women's Hospital.

The after treatment of laparotomies has been rendered much easier during the last few years for the following reasons: First, on account of the much better preparation of the patients by the nurses before the operation there is less trouble with the bowels afterwards, because there is less handling of the bowels and consequently less distension. Distension used to be our greatest bugbear, and caused the death of many patients by ptomaine poisoning and pressure of the heart. It was due to temporary paralysis of the bowels resulting from prolonged exposure and handling during the operation. Now the patients, except in cases of grave emergency, come into the hospital at least two, or better still, three days or a week before, during which time by careful diet and rhubarb and soda mixture the coated tongue is cleaned up and the distended bowels are gently and gradually emptied of their decomposing contents. So that when the patient is placed in the Trendelenberg posture, instead of the intestines bursting out at the first incision, there is on the contrary an inrush of air and at once the intestines disappear up under the diaphragm and are seen no more during the rest of the operation, in ordinary cases of ovarian cyst and fibroid tumor. In fact the author has formulated the axiom: It is unlucky to see the intestines and still more so to touch them. Formerly, on the contrary, they were not only being seen and handled during the whole course of a long operation but they were being chilled by the application of towels wrung out of hot water, which soon became an evaporating lotion, so that the patient went off the table with a temperature of 96, in a state of shock.

For the second reason why the after treatment gives us so little anxiety we have to thank the general practitioner, who sends us the patients much earlier, before the intestines have become adher-

*Abstract of paper read before the American Gynecological Society at Washington.

ent to the tumor. Consequently we can do quicker operations with less anesthesia and less hemorrhage. For the the third reason we owe a debt of gratitude to Professor Trendelenburg, of Leipsic, who by inventing his posture has enabled us not only to avoid the intestine but also to prevent hemorrhage and arrest it by seeing and tying every bleeding point in the uterus or broad ligaments.

Fourthly, we have to thank Fowler, of Brooklyn, who by advocating the semi-erect posture after bad cases has converted many of the latter into mild ones. Many cases of pus tubes and appendicitis which would have given the writer great anxiety because of the extensive infection of the peritoneum, gave very little trouble owing to Fowler's position, which permitted large quantities of infected pus to escape through a large perforated tube extending from the abdominal incision down through Douglas' cul de sac and out through the vagina. As much as forty ounces of foul smelling fluid has drained away instead of being carried widely over the peritoneum.

A fifth reason why we have less trouble with the after treatment is that by the use of a thirtieth of strychnine three times a day for a few days before and a week after the operation the paralysis of the bowels is prevented. When there is a temperature, however, the strychnine may be replaced by five grains of quinine three times a day. They are both splendid intestinal tonics.

The Diet.—By gradually restricting the diet before the operation to things which leave little residue, and especially by the avoidance of milk which not only leaves large masses of cheese but also is one of the worst things for fermenting and making gas, the need for severe purging has been done away with. Indeed the writer believes that he has seen several deaths from severe purging with salts in the old days. During the first twenty-four hours nothing is given by the mouth unless there is dry retching in which case a few tumblers of hot water with five soda mint tablets in each are allowed as an alkaline wash to remove the acid secretions of the stomach. During the second day large quantities of hot weak tea or beef tea or weak lemonade may be taken. If the patient cannot retain it and the urine is concentrated, then water must be given by the rectum, as she will suffer from uric acid pains all over her as long as her urine remains very red. The third day she is given large quantities of water gruel ; it must be nicely made and flavored with salt, sugar and nutmeg, vanilla or lemon. The fourth day all kinds of farinaceous food, such as many kinds of porridge, rice, sago and tapioca with cream, not milk. The fifth day toast and tea and preserves are added to the above, and at the end of the week she is put on full diet with the exception of meat. With this diet the bowels give very little trouble, a small soapsuds enema every morning being all that is necessary. It brings away a little gas and makes the patient feel more comfortable. As the tongue

is generally coated from the anesthetic and from the morphine we give rhubarb and soda mixture, which relieves the heartburn and acidity as well as acting as a gentle laxative. Morphine is looked upon as a causer of pain as well as a reliever, so that only one quarter is given when the patient wakes up from the anesthetic and another late that night; only rarely does she need a third quarter the second night. The distension pain of morphine is often worse than the pain of the operation. Five grains of assafetida three times a day relieves this pain, while of course morphine increases it.

Thirst gives very little trouble now: First, because the patients are no longer violently purged with salts before the operation; second, because they are urged to drink large quantities of fluids the day before the operation; third, because all arteries are tied before they are cut and hemorrhage during most operations is a thing of the past; fourth, because operations which used to take an hour now take twenty minutes, and as the bowels are no longer exposed there is no need for keeping the operating room at a temperature of 80 or 90, which caused profuse sweating and thirst; Fifth, in the rare cases, in which the operation has lasted more than an hour or much blood has been lost, we replace it by putting a gallon of normal salt solution into the abdomen, or a pint every four hours per rectum, very slowly. If rectum is irritable and will not retain it, five or ten drops of laudanum in starch will quiet it.

Getting up.—Although the patients often feel able to get up a few days after their operation, and could do so with impunity, their wound being closed in most cases with through and through silk worm gut sutures, yet their is little to be gained by their doing so. They were sick women when they came for operation, most of them anemic, and a few weeks in bed near a sunny window would do them good, anyway. Added to the illness which brings them to us there is to be added the anesthetic, the operation, the pain and the morphia; all things which make them more ill. The author has tried getting them up early and has found that at the end of four weeks they were not so well as those who remained in bed four weeks. We have found it advantageous, however, to allow them to sit up in bed frequently during the third week, and to allow them to walk about the hospital and even to go up and down stairs the fourth week. They are also encouraged to move their legs frequently while lying in bed.

Routine.—Some maintain that each case requires a different treatment, but the author claims that it is a great saving of wear and tear on everybody connected with the case to formulate definite rules for the after treatment of laparotomies and to abide by them, allowing the house surgeon or head nurse to vary them a little at their discretion, but also at their peril.

238 Bishop Street, Montreal.

Selected Article.

A STUDY OF ONE THOUSAND CASES OF ECTOPIC PREGNANCY REPORTED IN THE LITERATURE OF THE PAST TEN YEARS; WITH ESPECIAL REFERENCE TO DIAGNOSIS AND THE REPORT OF CASES OCCURRING IN THE WRITER'S SERVICE.

By O. M. Steffenson, M.D., Chicago.

The purpose of this paper, as its title implies, is to carefully analyze the symptoms in a large number of cases of ectopic gestation, to the end that the conclusions reached may aid and prompt the practitioner in recognizing and differentiating a condition, the early detection of which frequently saves life and always prevents dangerous and incurable pelvic complications.

In perusing the literature we have certain difficulties to contend with, inasmuch as the history of many cases is incomplete. This unfortunate circumstance is atoned for, in a measure, by the fact that in one series of cases reported special efforts have been made to bring out certain sets of symptoms, while other groups of cases are reported in reference to other combinations of symptoms. By combining this extensive material it is possible to arrive at a fair estimate of the importance, frequency and value of the various symptoms and phenomena through which an ectopic gestation declares itself.

Cases are found in considerable number in which a differential diagnosis prior to operation was practically impossible. The causes of these diagnostic failures are so clearly and efficiently portrayed by the different writers that several paragraphs may profitably be employed to arrange and classify this group of cases with the view of deducing from them certain guides and methods, which may result in a marked reduction in failure to detect this rather frequent condition.

The literature distinguishes sharply between the diagnosis before rupture and the striking symptoms at the time of, or immediately after rupture. With the advent of more accurate

pathological data this difference becomes a little hazy and in many instances disappears altogether.

While it is not the purpose of this paper to deal with either the etiology or pathology of ectopic pregnancy, yet a reference to these subjects will be necessary now and then for the purpose of realizing the comparative value of certain symptomatic data.

The close relationship, as far as symptoms are concerned, which ectopic gestation of necessity bears to normal pregnancy, constitutes one of the principal reasons for its early escape of recognition both by the patient and physician.

The frequent co-existence of ectopic and normal gestation further aids in concealing the abnormal condition, and adding to this the numerous instances in which cardinal symptoms are wanting and other pathological conditions present with somewhat similar physical findings, the subject becomes complicated to a degree that not infrequently defies differentiation.

VARIETIES.—The primary seat of growth and its subsequent location after rupture of the first gestation sac, determine the variety of ectopic pregnancy. Since an impregnated ovum may begin its growth in the ovary or in any portion of the lumen of the tube and uterus, theoretically an unlimited number of varieties is possible.

The number of these varieties, as far as practical recognition is concerned, is reduced to very few by the general distension of the tube, either from growth of the ovum or from repeated hemorrhages and changes which take place after rupture or abortion.

Practically, the literature considers the location of the ovum anywhere between the ampulla and the tubo-uterine junction as belonging to the isthmic variety. The instances in which the ovum develops in the wall of the tube are distinguished from the ordinary isthmic form as tubal interstitial.

The cases reported of this variety show the lumen of the tube to have been intact and not involved in any direct connection with the gestation sac. The isthmic variety, occurring in the lumen of the tube, constitutes by far the bulk of the cases reported—more than ninety per cent. The tubal interstitial variety seems to be very infrequent. (This may be acounted for by imperfect examinations of the specimens removed, it being only in the last few years that this form has been recognized as such at all.) The remaining ten per cent. of cases are consumed by the interstitial form, numbering three per cent., developing in the corunal wall, at the tubo-uterine junction; the ampullary, having their seat in the ampulla of the tube; and the

ovarian variety, in which the ovum develops in the ovarian tissue proper. Of these last-mentioned cases more than a score have been reported with careful microscopic examination, establishing beyond doubt the existence of true ovarian pregnancy.

By rupture or abortion of the tubal variety of gestation, the tubo-abdominal, the abdominal, the tubo-peritoneal or peritoneal forms may occur. A number of these cases has been reported in which the pregnancy continued to term. Evidence exists to prove that early rupture of an ampullary or an ovarian pregnancy gives rise in at least some instances to the so-called tubo-ovarian type. An ovarian pregnancy may rupture directly into the peritoneal cavity and produce the peritoneal type.

It is generally accepted that in order to continue its growth after rupture or abortion the ovum must be expelled with its amniotic sac intact. The term tubo-abdominal is here employed in reference to the class of cases rupturing between the layers of the broad ligament, and which to begin with are of the tubo-intraligamentary type. Continuing their growth, they dissect up the peritoneum, occupy the abdominal cavity, remaining at all times extraperitoneal. This variety is quite distinct from that type which ruptures directly into the peritoneal cavity and continues its growth intraperitoneal. Cases of extraperitoneal gestation in which the tube does not form a part of the sac are styled in their early stage as intraligamentary and later develop into the abdominal form. The peritoneal variety requires no further explanation.

Course and Termination.—The ovum established in some particular location continues its growth and increase in size, until it meets with some of the unfavorable events to which it is subject. From separation of the chorionic villi from the wall to which they are attached, due perhaps to abortive attempts, hemorrhage results, with consequent death of the ovum. This is followed by its complete or partial absorption, in some cases, while in others the production of a mole results. On the other hand, should the ovum continue to live, it may enlarge until the elasticity of its host is overcome and rupture of the sac occurs.

A tubal pregnancy is frequently dislodged from its site of growth by an abortive process, which may be complete or incomplete. An ovarian pregnancy ruptures into the peritoneal cavity. The tubal form ruptures either into the peritoneal cavity or into the intraligamentary space. The tubal interstitial type ruptures into the peritoneum or the lumen of the tube, while the interstitial is propelled either into the peritoneal or the uterine cavity.

The intraligamentary form may undergo secondary peritoneal rupture. A tubal abortion may expel the ovum into the peritoneal or uterine cavity or into the interstitial portion of the tube itself, from which position it may later rupture into the peritoneal cavity.

It is interesting to know that, aside from traumatism and manipulation, rupture of a gestation sac results from two distinct causes or a combination of these; distension from repeated hemorrhages, and the destructive action of the trophoblasts on the wall of the sac. The latter factor probably acounts for some of the painless ruptures.

Investigation of the records of 1,227 cases shows 45 per cent. to have been tubal abortions, and 44 per cent. tubal peritoneal ruptures, with only eleven cases of rupture into the broad ligament and 25 cases unruptured. There was also a number of undetermined cases. Some allowance must be made for incorrect observation, as the later authors report a greater percentage of tubal abortion in their series.

From this it will be seen that tubal abortion is the most frequent occurrence, peritoneal rupture second, and rupture into the broad ligament very infrequent. With a few exceptions rupture or abortion takes place in from two weeks to three months after impregnation, the average time being eight weeks. As a consequence of either rupture or abortion, the patient may succumb to hemorrhage. The blood may become encapsulated, producing an hematocele which, from repeated hemorrhages into its cavity, may undergo secondary rupture into the general peritoneal cavity. Absorption of large accumulations of blood is not uncommon, and this fact has stimulated the expectant method of treatment.

In a certain number of cases of rupture or abortion, the hemorrhage takes place gradually. A plastic wall is created about the hematocele, and a smooth, globular tumor is formed which, when situated at the ostium of the tube, is known as peritubal, and when beyond the osteum, as paratubal hematocele. Rupture and abortion may occur simultaneously and give rise to both varieties of hematocele on the same tube. These tumors are freely movable and have the appearance of cysts. The ovum may pass into the peritoneal cavity and continue to term as an abdominal pregnancy and remain for years as a lithopedion.

Symptoms.—A mass situated within the pelvis or lower abdomen is present in all cases of ectopic pregnancy. This mass may vary in size from that of a uterus at term to that of a

nodule demonstrable only by the microscope. It may correspond, in feel, to an enlarged tube, ovary, or tumor in the uterine horn, which may be freely movable or firmly fixed by adhesions. It may occupy the space between the layers of the broad ligament on either side, or extend completely across the pelvis from one side to the other, surrounding and enveloping the uterus and bladder in a fixed, immovable mass. Its location may be the Douglas cul-de-sac, or it may fill the peritoneal cavity.

In a series of 354 cases the right tube was involved 189 times and the left tube 147 times. A few cases are reported in which both tubes were involved, either simultaneously or consecutively. In a series of 1,000 cases, the ovary was the seat of tumor 20 times and the tubo-uterine junction 32 times, while 11 cases found the tumor between the layers of the broad ligament.

Pain.—Owing to the incompleteness of the reports of most cases in regard to symptoms and pathologic findings, a percentage computation of the value of pain as a diagnostic aid is not possible. In this part of the work it has been necessary to make use of isolated material here and there in which the relation of symptoms to pathology is carefully recorded. From the studies of the histories of these cases, which unfortunately are few, sharp, agonizing localized pain is to be associated with acute distention of the gestation sac; localized, gnawing, uncomfortable, painful sensations are to be associated with a gradual increase of pressure within the sac, and moderate cramp-like local pains are constantly found in tubal abortion. Severe pain, intermittent or constant, felt in a considerable portion of the pelvis, is usually a forerunner of the rupture of a pelvic hematoma or hematocele.

The advent of rupture relieves the tension in the sac and abolishes the pain associated with it. As a negative argument supporting the association of pain and distention, a number of tubal pregnancies and nearly all of the ovarian variety have ruptured without the phenomenon of pain. The microscopic examination in these cases demonstrates the rupture due to the destructive action of the trophoblasts of the ovum, and not to a sudden or gradual distension to a point of overcoming the elasticity of the gestation sac—a quite significant fact to bear in mind.

Concerning the diffuse general pains in the abdominal and pelvic cavities, it is well known that any growth within the abdomen will at times cause more or less peritoneal irritation. Con-

sistent with this we find more or less general abdominal pain in the majority of cases of ectopic pregnancy. A general abdominal tenderness following the phenomena of rupture and analogous to the pain of a peritonitis, is as a rule associated with free blood in the peritoneal cavity. The palpation of an ectopic mass is always productive of pain, because it increases the pressure within the sac. The irritability of the peritoneum after the escape of blood into its cavity is evidenced by severe pain on the slightest pressure over the abdomen.

A series of 70 cases of tubal abortion suffered cramp-like pains. Six cases of ruptured ovarian pregnancy complained of no pain. A series of 60 cases had more or less marked abdominal pain in 57 of the number. Out of 27 cases, 13 suffered no pain at or immediately preceding rupture. A series of 30 cases of tubal pregnancy complained of more or less pelvic discomfort. One case complained of sharp pelvic pains with a constant gnawing sensation; the operation showed no rupture. Eight cases had sharp localized pain; 4 showed tubal rupture. 2 tubal abortion, and 2 were unruptured. Eleven cases of hematosalpinx had pains varying from cramp-like to just uncomfortable. Four patients had bearing-down pains; of these, 2 were were ruptures and 2 were abortions.

From this array of data, it appears that localized cramp-like pains are fairly constant in cases of tubal abortion and are presumably due to intermittent contractions of the tubal wall and intratubal bleeding, with consequent increase in tension.

The number of tubal and ovarian pregnancies unaccompanied by pain is best explained by the action of the trophoblasts which, eating their way through the wall of the gestation sac, permit rupture without the necessity of a pressure sufficient to overcome the elasticity of the sac.

The investigation of the histories of the ruptured cases shows, in the main, that primary rupture may occur with little or no pain. On the other hand, an hematocele or hematoma of large extent becomes, when distended by a fresh hemorrhage into its mass, the seat of severe and unbearable pains, which disappear when rupture relieves the tension. Acute distension is always productive of a severe localized pain. Slow gradual distension of a gestation sac or hematocele is productive of gradually increasing suffering. This, no doubt, accounts for the statement so often found in the literature that the severity of the pain bears little relation to the gravity of the case. Rupture relieves the tension and consequently abolishes the pain. Blood

in the peritoneal cavity, found after rupture, produces a general diffuesed pain over the abdomen similar in character to that of a beginning peritonitis.

Hemorrhage in connection with ectopic pregnancy is found within the tube, between the layers of the broad ligament, or within the peritoneal cavity, where it may be encapsulated or free. Hemmed in by the layers of the broad ligament, blood rarely accumulates in dangerous amounts. Leaking out slowly into the peritoneal cavity, as from tubal abortion, it sinks into the Douglas cul-de-sac and there becomes encapsulated. Poured out rapidly into the peritoneal cavity, it may exsanguinate the patient.

The site of a peritoneal rupture determines, in some cases at least, the extent of free hemorrhage into the peritoneum—the nearer to the uterus the rupture in the tube occurs, the more copious the flow of blood. When a sufficient amount of blood exists free in the peritoneal cavity its presence may be elicited by the usual signs which a fluid gives when in that location, viz., dulness in the flanks, percussion wave and change of percussion dulness when shifting position. The character of the blood found on opening the peritoneal cavity is of diagnostic value. Fresh hemorrhage and recent clots usually denote primary rupture and should guide the operator to the ovary or tube. Old clots, with little or no fresh hemorrhage, are associated with secondary rupture of an hematocele, hematoma, or hematosalpinx, which materially changes the immediate operative technic. The causes of these phenomena are too apparent to need discussion.

Associated and Concurrent Symptoms.—Age: The age is of no particular diagnostic significance, except, however, that the cases of ectopic pregnancy occur during the child-bearing period. In 280 cases the ages, as reported, varied from 21 to 45 years, the average being around 30 years. In the case of some of these pregnancies going to term, or nearly so, and then remaining indefinitely as lithopedia, there is scarcely a question but that the age limit at which some of these cases might apply for treatment might be set far beyond that of 45 years, *i.e.*, long after the child-bearing period. The age at which this serious malady occurs may be considered as reducing the mortality, inasmuch as in the prime of life these patients are able to withstand the depletion occasioned by hemorrhage, to which at a later or earlier age they might succumb.

Previous Pregnancies: That normal impregnation of the

ovum has occurred previously and may take place after an ectopic gestation, abundant evidence is at hand. Investigation of 280 cases finds 243 to have been normally pregnant from one to eight times, and in only 37 cases were the women pregnant for the first time. A long period of sterility preceding the ectopic gestation is also negatived by the report of patients who had been pregnant from three to two years previously. That normal pregnancy may coexist with the ectopic type is abundantly proven by the report of more than 100 such instances.

Signs and symptoms of pregnancy may all be present, or present only in part, or they may be entirely wanting. From the histories of 223 cases, fifty per cent. show great irregularity in menstruation, both as regards time duration and amount. In some the bleeding was profuse and continuous, in others intermittent, in some described as spotting. Ten per cent. of cases had lost one or more periods, and 25 per cent. had no menstrual irregularity. In a series of 30 cases no decidua was shed in 16 cases, and no irregular uterine hemorrhage occurred in four cases. The uterus was found to be enlarged in the majority of cases. Out of 27 cases eight had marked symptoms of pregnancy and eight showed none whatever. In 60 cases changes in the breasts occurred nineteen times, and decidua was cast off in 11 cases. In a series of 30 cases, 6 had all the symptoms of pregnancy, and 11 had only nausea and vomiting.

Shock, feeble and rapid pulse, have occurred in nearly all cases of profuse hemorrhage into the peritoneal cavity. From the reaction of the peritoneum to the presence of blood, nausea, vomiting and intestinal stasis, with consequent meteorism, are described again and again. Shock and nausea without pulse changes have been found frequently with the occurrence of fresh hemorrhage into a hematosalpinx, hematoma or hematocele. A few cases have been recorded of severe intra-abdominal hemorrhage and slow pulse.

Depending upon the location and size of the gestation sac, the uterus will suffer displacement in various directions, or may become fixed by adhesions to the tumor. The tumor may be located so as to be influenced by change in the volume of bladder and rectal contents, when the acts of micturition and defecation will be associated with pain.

Coitus, for similar reasons, may be accompanied by pain. Coughing, sneezing, laughing or any other act which increases the intra-abdominal pressure, is not infrequently associated with pain at the site of the tumor, for reasons already mentioned.

Differential Diagnosis.—The authentic report of more than 150 cases of coincident normal and ectopic gestation must be kept well in mind. Retroversion or anteversion of a normally pregnant uterus has, to the writer's knowledge, confused experienced operators and led them to laparotomize the patient. The production of abortion might in these instances have been preferable to a laparotomy. Solid tumors in the pelvis, aside from growing rather slowly as compared to the continuous distension of a gestation sac, are, as a rule, not painful to palpation and give no signs of impending rupture; micturition may be frequent and constipation marked, but the acts of defecation and micturition are not associated with pain.

It is with cystic tumors of the ovary or uterus, hydrosalpinx and hematoma from other causes than ectopic gestation, that the difficulty experienced has been of sufficient magnitude to prevent differentiation, and with these affections a doubt will probably continue to exist until operative interference tells the story. The infectious processes, such as pus tubes, ovarian abscess, cornual abscess, and pelvic cellulitis, have, as a rule, a fairly well marked history of infection before the beginning of the attack, as well as signs and symptoms of infection, such as leucocytosis, rise of temperature, and increased frequency of pulse rate which reach a climax and then subside with the production of inflammatory sequelæ, such as stationary pus sacs and adhesions of the different pelvic contents. Perforative appendicitis with local or general peritonitis has in addition to shock a typical history, severe septic symptoms, and not the pulse changes noted in peritoneal rupture of tubal gestation. The rupture of other abdominal viscera, giving rise to more or less profuse hemorrhage into the peritoneal cavity, is usually preceded by a definite history of disease in connection with the organ involved.

Hemorrhage into malignant growths in the abdomen or pelvis may simulate rupture of an ectopic gestation sac, as may also acute sudden hemorrhage into the intestinal wall. In the former condition a previous tumor with definite characteristics will usually clear up the diagnosis, and in the latter the position which it assumes does not, as a rule, correspond to that of ectopic pregnancy.

Of the five cases occurring in my own service, two were tubal abortions with encapsulated hematocele, one unruptured and two ruptured, all being of the tubal variety. Cases I. and II. were seen in consultation and operated upon within a few hours after examination. A tumor the size of a fist was present in the left

pelvis of both patients. It was tender to touch. Both had been curetted for a supposed abortion. In one the hematocele was intact. The other had half a pint of blood free in the abdominal cavity, and a hole in the lower part of the sac showed where secondary rupture had taken place. A portion of the omentum had forced itself into this aperture and had practically occluded it.

Case III. was a three or four weeks unruptured tubal pregnancy, found accidentally while operating for a large ovarian cyst. The left tube was involved.

Case IV. Primipara, age 17. Had missed two periods, after which she experienced sharp local intermittent pains in the right side of the pelvis, accompanied by some rise in temperature. Examination revealed a tender mass, the size of an orange, occupying the right side of the pelvic cavity. The symptoms subsided, and for two months the patient was free from unpleasant sensations. One evening the intermittent pains reappeared, and became so severe they decided the patient should submit to operation. The tube was found to have been ruptured, and formed part of the wall of the resulting hematocele, which was intact. A small fetus was found in the cavity of the hematocele.

Case V. Primipara, age 29. This patient had been perfectly well, had menstruated regularly and normally. One morning, without any warning, she experienced a severe localized pain in the right side, after which she fainted. Two hours later she regained consciousness and was able to summon aid. Examination at this time revealed a general soreness in the abdomen. Color and pulse good. A bimanual pelvic examination elicited nothing abnormal. During the evening and night following the general abdominal soreness increased. A gradual pallor spread over the patient's face, and medical aid was again summoned in the morning. She was then almost pulseless, her face was blanched, and she appeared to be in collapse. She was at once removed to a hospital and the operation was performed immediately. The peritoneal cavity contained about three or four pints of free blood and some recent clots. The tube was found to have ruptured near the tubo-uterine junction. Chorionic villi were found in the sac within the tube, but the fetus could not be found.

Case VI. M. S., age 31. Had a child ten years ago, and a number of miscarriages since, the last one occurring one year ago. She had menstruated regularly up to six weeks before the

onset of symptoms. She considered herself normally pregnant. One evening a sudden pain was felt in the right side of the pelvis. Examination revealed a tender mass, the size of a large orange, firmly fixed in the pelvis; pulse and temperature normal. The following day, pain had disappeared except some soreness over the abdomen. Operation demonstrated rupture of a tubal gestation and a small quantity of blood in the abdomen. A fetus ten weeks old was found in the peritoneal cavity. The cord and placental tissue were in the tubal sac. The tube was removed and the abdomen closed.—*Am. Jour of Surgery.*

Physician's Library.

Inflammation. An introduction to the study of pathology. By J. GEORGE ADAMI, M.A., M.D., F.R.S., Professor of Pathology, McGill University, Montreal. London: Macmillan & Co., Limited. 1907. Price $1.50 net. Canadian Agents: The Macmillan Company, of Canada, Limited, 27 Richmond Street West, Toronto.

In this rev sed and enlarged reprint of an article in Professor Allbutt's "System of Medicine," the all-important subject of "Inflammation" has been treated by Professor Adami in a masterly, and also in an exhaustive manner.

It is a work which will well repay the careful study any graduate in medicine and surgery may choose to give it, while to the undergraduate in the study of pathology we feel it is indispensible. As Professor Adami points out, the "System of Medicine," edited by Professor Allbutt, may not be within the reach of most students of medicine, but this little work is easily so.

In our yearly contact with students, in the teaching of clinical surgery, it has been our rule to lay great stress on, and devote much time to, the subject of inflammation, realizing as we do the absolute necessity of the student of surgery mastering this subject before entering on the study of the other phases of the science and art of surgery.

The space at our disposal will not permit us to enter into a more detailed analysis of this excellent work; suffice it to say it is thoroughly up-to-date. In chapter XXII., "On the Principles of Treatment," mention is made of some of the newer methods of treatment, *e.g.*, "Bier's method of induced hyperemia," "Mikulicz's of injections to develop the resistance period," and Sir A. E. Wright's method of employing the toxins of specific microbes to stimulate increased resistance to the local growth of these microbes.

Essentials of Obstetrics. By CHARLES JEWETT, M.D., Professor of Obstetrics and Gynecology in the Long Island College Hospital, Brooklyn, N.Y. Third Edition, thoroughly revised. 12mo, 413 pages, with 80 engravings and 5 colored plates. Cloth, $2.25 net. Lea Brothers & Co., Philadelphia and New York, 1907.

We find, on careful examination of this book, that it is admirably adapted to the requirements of particularly the third-year medical student beginning the study of obstetrics. It will also

fill an exceedingly good place in the working library of the final man, especially when "grinding" preparatory to examination. From it may be obtained a concise, compact and practical knowledge of the obstetric art.

Anesthetics and Their Administration. By FREDERIC W. HEWITT. Publishers: The MacMillan Co., The MacMillan Company of Canada, Toronto.

A review of the Third Edition of this work emphasizes the position which the writer has always taken, that one should approach the administration of an anesthetic with a prayer in one's heart rather than the frequent jest, and with the same sense of responsibility as the most conscientious operator goes to his portion of the task.

There is some abridgment of the detail of the earlier volumes amply compensated for by the elaboration of the chapters dealing with "Chloroform Anesthesia" and "Surgical Shock During Anesthesia," and by the addition of those upon "Ethyl Chloride" and "Acid Intoxication, the Result of Chloroform Anesthesia."

The volume as a whole is evidently the work of one who fully appreciates the importance of his undertaking to assist not alone the regular anesthetist, but as well those called much less frequently to induce surgical anesthesia. A full discussion of the various anesthetics, their relative dangers, the sequences, and the apparatus used in their administration, expressed in simple English, well illustrated with diagrams, forms a valuable portion of the work, appealing very directly to the student and the general practitioner.

International Clinics. Publishers: J. B. Lippincott Co., Philadelphia.

The second volume of the 17th series of the "Clinics" is at hand. It is a worthy successor of the sixty-five volumes which have preceded it, and is prepared with the same care both as to external form and internal substance.

To help the practical man of to-day seems to be the aim of each author almost without exception. We can recommend the "Clinics" to those heretofore unacquainted with its value, believing that every volume amply repays the expenditure made in

securing it by the eminently practical suggestions with which it teems.

Thoughtful papers on "The Vaccine Treatment of Infectious Diseases," "The Detection of the Ova of Intestinal Parasites in the Feces," "Local Anesthesia in Major Operations," "Post-Partum Hemorrhage," and "Appendicitis in Pregnancy," also upon "Experimental Cerebro-Spinal Meningitis," are but typical of the character of all the papers of the volume.

The *Interstate Medical Journal* (St. Louis) announces the purchase of the *St. Louis Courier of Medicine,* one of the oldest medical journals in the West, and its consolidation with the *Interstate* on July 1st. The *St. Louis Courier of Medicine* was established in 1879 by an association of prominent St. Louis physicians. It has always commanded a large following throughout the West and South, and held the respect and esteem of the entire profession of this country. This merger removes from the field an old and highly esteemed contemporary, and its consolidation with the *Interstate* adds strength and prestige to that periodical. This is the fourth medical journal that has been purchased and absorbed by the *Interstate* during the past few years.

The fourth American edition of Knopf's International prize essay, "Tuberculosis as a Disease of the Masses, and How to Combat It," is sold for 25c., paper bound; 50c. cloth bound. In quantities correspondingly cheaper. Published by F. P. Flori, 514 East 82nd Street, N.Y. Also for sale, "Charities," 105 East 22nd Street.

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MANITOBA—Harvey Smith, Winnipeg; J. A. MacArthur, Winnipeg; J. Hardy, Morden.

NORTH-WEST TERRITORIES—J. D. Lafferty, Calgary; M. Seymour, Regina.

BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

Psychiatrics in Ontario is making some progress. By the departure for Germany and England, at the instance of the Government, of Dr. Clark, Superintendent of the Toronto Provincial Hospital, and Dr. Ryan, occupying a similar position for the Rockwood institution at Kingston, to study modern methods and make observations abroad, an important advance has been made. When they return, primed with all that is needful to place psychiatry in Ontario in the very front rank, it is to be hoped that the first step forward will be the divorcing of politics and psychiatrics. Superintendents should have a large share in the selection of their assistants; and before an appointment be made they should at least have the opportunity to advise in the selection. The department having charge of these appointments might exercise a little common decency and remember that there might be others more qualified for superintendents, or even assistants, than one who has busied himself in the ranks of party.

Doctors of Refraction, travelling about the country, in touch with the medical profession, fully qualified M.D.'s, is a good suggestion proposed by the *Medical Record*. In country practices, and even in many large towns, not a single man scarcely

in the medical profession, understands the fitting of glasses. Being a somewhat tedious procedure, it would probably make too great inroad on his already busy life. But there is here a large field, and the *Record* particularly points it out to the young graduate. If a young graduate in medicine, fully qualified to test for refraction and fit glasses, were to establish a connection with the medical profession in a dozen towns, and strictly confine himself to that work, and that work alone, he would be a boon to the profession as well as to many people in the country, who perhaps buy their spectacles at the grocery store or have their eyes tested by a druggist, a jeweller, a veterinary, or a peripatetic so-called "doctor of refraction." The medical profession in a dozen towns, where there are no oculists, could well afford to take this matter in hand, and we commend it to county medical societies for their consideration. Perhaps one man might thus confine his work to a county or a group of counties.

Diet as a Therapeutic Measure in Diseases of the Skin is the title of a reprint we have received from Dr. George Henry Fox. Coming from such a good source, a few pointers in the dietary treatment of diseases of the skin will prove profitable. Few practise what they preach in this regard. Dr. Fox advises a careful regulation of the diet in all inflammatory affections of the skin. The majority of patients eat too much; and the excessive indulgence in food, combined with a sedentary life, leads to a large proportion of inflammatory skin diseases. A good plan of treatment in these is to reduce the weight all the way from five to twenty pounds. An excess of nitrogenous food is responsible for many cutaneous affections; such is the relation of psoriasis to a meat diet. In placing a patient upon a diet, select a few nutritious articles of food; then you know what your patient is eating. The avoidance of sweets and starchy foods, now and again, may be all right, but generally it is a colossal fad. Fresh fish has never, to Dr. Fox's knowledge, caused any trouble; and the advice to "avoid fried food" usually amounts to nothing. Everything should be "properly cooked." Even "red meat" is not so bad, and may be a great relief from squab and chicken. The two therapeutic handmaidens of diet are exercise and the cold bath.

Annual Meeting of the Canadian Medical Association.—Arrangements have been completed for the annual meeting of the Canadian Medical Association in Montreal on September 11th, 12th and 13th, 1907. The authorities of McGill Univer-

sity have placed the University Buildings at the disposal of the Local Committee of Arrangements, and it has been decided to hold the general meetings of the Association in Molson Hall, the Medical Section in the lecture-room of the Redpath Museum, and the Surgical and Pathological Sections in the lecture-rooms of the Arts Building.

The President's address, for which the first evening, September 11th, is reserved, will be delivered in the large hall of the Students' Union, and will be followed by a reception to the visiting members of the Association and their friends. The Students' Union is situated on Sherbrooke Street, opposite the University grounds, and is admirably suited for such a function. On the evening of September 12th there will be a smoking concert in the Victoria Rifles Armory. A garden party, golf match, and drives, to fill in the afternoons after the business of the sections has been concluded, have also been planned.

The staffs of the various hospitals have arranged to give clinics in the hospital theatres each morning at 8.30, at which members will have an opportunity of seeing rare and interesting cases in the service of the hospitals.

Local Anesthesia in Operations for Inguinal Hernia.—An article dealing with this subject, and more particularly drawing attention to the adequacy of local anesthesia in such cases, appears in the June number of the *Annals of Surgery*, from the pen of Prof. John A. Bodine, of the New York Polyclinic Medical School.

As pointed out by Prof. Bodine, and also as is well known to most practitioners, a large majority of patients with hernia prefer to endure the truss rather than submit to an operation for radical cure. Undoubtedly one great reason for this is to be found in the almost universal dread of general anesthesia. If, then, some means can be found whereby general narcosis can be dispensed with in this operation, a much larger percentage of patients are likely to seek a radical cure.

In his most interesting paper, Prof. Bodine has based his remarks and conclusions on a series of over four hundred cases operated on by himself for radical cure, with local cocain analgesia. Moreover, since the first operation of this series, he has used no other method of analgesia in these cases.

The method of procedure is, in brief, as follows:

The skin and subcutaneous tissues of the part to be incised are properly infiltrated by a 1-500 warm cocain solution, which

renders the incision of the external oblique aponeurosis painless. The ilio-inguinal nerve is located on reflecting the external oblique aponeurosis, and is cocainized, thus rendering practically the whole area involved non-sensitive. The parts supplied by the ilio-hypogastric and genito-crural are sufficiently narcotized by infiltration. By not cutting below the level of the external ring, all vessels of any moment are avoided. The sac, which, of course, has a different nerve supply, gives rise to little, if any, pain, so long as there is no forcible dragging on it.

The simplicity of this technic will appeal alike to the surgeon and the general practitioner.

Some of the advantages claimed for local analgesia in these cases are:

1. Pain is practically *nil.*

2. The passive condition of the patient renders haste unnecessary, and therefore makes for greater thoroughness.

3. Obviously greater safety to patient than with general narcosis.

4. Age, atheroma, lesions of kidney and heart offer no barrier, as in general narcosis.

5. In strangulated hernia local analgesia may be regarded as almost imperative, since it does away with any additional shock, enables patient to better control vomiting, and gives more time to decide on the circulation in the gut. ("In one instance the gut was wrapped in hot saline cloths for over an hour, until the circulation was established beyond a doubt.")

6. The greatest advantage of this method is perhaps the preservation of the structural integrity of the nerves in this area, thus preventing atrophy and weakening of the very portion of the abdominal wall which aids so much in the permanency of the cure.

Limitations to the use of this method are:

1. Fat is not œdematized by the cocain solution, and consequently there is pain while incising it. "The fat subject can be operated upon under local anesthesia successfully, but not painlessly."

2. Very large, complicated herniæ give rise to pain only when the gut and omentum are dragged upon."

Prof. Bodine remarks: "Certain advantages are inherently associated with local analgesia. It imposes upon the surgeon respect for tissues, gentleness of manipulation amounting to daintiness. Blunt dissection, tearing or rubbing the sac from the cord with gauze pads is impossible. The number of times the wound

is swabbed is economized, and all this is as it should be for the welfare of the wound."

He sums up his conclusion as follows: "Local analgesia is entirely adequate for the radical cure of inguinal hernia."

Canadian Medical Association—Transportation Rates, Montreal meeting 11th to 14th September, 1907.—The Standard Convention Certificate plan will prevail for this meeting; and all delegates, when purchasing first-class single transportation to Montreal for themselves, their wives or daughters (no others), must get from the ticket agent at the same time a Standard Convention Certificate, which, when vised at Montreal, will entitle holders to return free if three hundred are present holding these; one-third if fifty or over. Every one should, therefore, endeavor to make one of these three hundred, so as to provide for free return transportation.

British Columbia points.—The Canadian Pacific Railway will apply rate of single fare on certificate plan to Montreal and return, tickets to be sold and certificates issued on Sept. 1st and 2nd, and validated certificates honored for tickets for the return journey up to and including October 9th. Tickets good for continuous passage only in each direction.

Manitoba, Saskatchewan and Alberta.—On Canadian Pacific and Canadian Northern, tickets to be on sale 5th, 6th, 7th and 8th Sept. west of Port Arthur, and to be honored at Montreal up to and including the 11th of October. If Lake Route used in one direction, $4.25; both directions, $8.50 extra.

Ontario, East of Port Arthur, and Quebec, and Maritime Provinces.—Tickets for sale on the 7th and 8th Sept.; final purchase at Montreal, Sept. 18th. Passengers going rail and returning R. & O. Navigation Co., or *vice versa,* rate to be one and one-half fare—Toronto or Kingston to Montreal. Tickets will also be honored via R. & O. Navigation Co. on presentation of rail excursion tickets to the ticket agent at Toronto, or to the purser on board steamer, and payment of the following arbitraries, viz., $6.65 Toronto to Montreal; $3.50 Kingston to Montreal.

The General Secretary will issue his annual circular of information to members early in August.

Between Port Arthur and Halifax, the C. P. R., G. T. R., C. N. R., Intercolonial and R. & O. Navigation Co. are included in the arrangements.

News Items.

Dr. T. A. Starkey, McGill University, has gone to Europe.

Dr. John H. Conklin has purchased Dr. Little's practice at Alexander, Man.

Dr. Martin, Dundalk, has gone to England to take a course in a London hospital.

The Supreme Court of Canada has declared the Medical Act of Alberta *ultra vires*.

Dr. W. H. B. Aikins, Toronto, has returned from an extensive tour of Europe.

Dr. John Chisholm has located at Prince Albert and is building up a fine practice.

Seventy-four were successful in the final medical examinations at McGill University.

Hon. Dr. J. S. Helmcken, Victoria, B.C., has recently celebrated his 82nd birthday.

Dr. W. H. Pepler, Toronto, has returned to his practice after several months' graduate work in New York hospitals.

Dr. J. D. Lafferty, Calgary, Alberta, has resigned from the Alberta Medical Council to become Registrar of the College.

Dr. T. Chisholm, East Huron's energetic representative in the Commons, returned last week from a trip west as far as Prince Albert.

Dr. Harry J. Watson, Winnipeg, who recently underwent a serious operation in Toronto, has completely recovered and returned to his practice.

Canadian Medical Association.—Three hundred delegates are required to attend the annual meeting in Montreal, from Sept. 11th to 14th.

Dr. Geo. E. Seldon, formerly of Ingersoll, house physician, has been appointed senior house surgeon to the Salford Royal Hospital, Manchester, England.

Hon. Dr. R. A. Pyne has resigned from the Registrarship of the Ontario College of Physicians and Surgeons, and has been succeeded by Dr. Jno. L. Bray, LL.D., Chatham, Ont.

Dr. J. H. Leeming, Winnipeg, has gone to Great Britain.

Alexandra Hospital, Montreal, admitted in June 12 diphtheria, 47 measles, 10 scarlet fever, and 7 erysipelas.

The Ontario Medical Council met this year at Kingston, and elected Dr. W. Spankie president, and Dr. Peter Stuart, Milton, vice-president.

Dr. J. L. Todd, a distinguished graduate of McGill, has been appointed Professor of Parasitology, his work to be partly in connection with the development of bacteriology at McGill.

The Faculty of Medicine of McGill has instituted a new chair in the History of Medicine, and Dr. Andrew McPhail, a distinguished graduate of McGill, has been appointed to be professor of the subject.

Stratford friends will be pleased to learn that Dr. Robert D. Forbes, son of Mr. John Forbes, Brunswick Street, has secured the highest surgical degree in England, that of F.R.C.S., he being the first Canadian from the Stratford district to attain that coveted honor.

Dr. T. G. Roddick has resigned his appointment as Professor of Surgery in McGill University, a post which he has held since the death of Dr. Fenwick in 1894; and Profs. James Bell and G. E. Armstrong have been appointed in his place as Professors of Surgery and Clinical Surgery.

Medical Staff at Muskoka.—Drs. Harry James and J. S. Pritchard have been added to the medical staff of the National Sanitarium Association. The former will be assistant at the Muskoka Cottage Sanitarium, and the latter at the Muskoka Free Hospital for Consumptives. The resident medical staff of the Muskoka institutions now consists of C. D. Parfitt, M.D., M.R.C.S., L.R.C.P.; W. B. Kendall, M.D., C.M., L.R.C.S., L.R.C.P.; J. K. M. Gordon, M.D., and Drs. James and Pritchard.

Publishers' Department

SCOPOLAMINE NOT HYOSCINE!—A Caution.—In the *Archiv fuer Gynackologie* Steffen gives some interesting details as to the use of scopolamine-morphine by Leopold. The latter has employed this method in three hundred labor cases. His verdict is that the method does not accomplish the desired results, it cannot be regarded as harmless for mother and child, and in private practice the by-effects liable to develop may render medical aid requisite at any moment. When men come to conclusions so opposite as those of Leopold and those reported by Gauss, we, to whom each observer is equally trustworthy and free from bias, can only attribute the diversity to a difference in technic. That this is so may be seen by Gauss' examination of Hocheisen's method. Gauss secured a specimen of the solutions employed by Hocheisen and tried them in ten cases, the results being far worse than those reported by Hocheisen. Every objection raised by Leopold has been examined and disproved by Gauss in his much larger experience. Weakness of the labor pains did not occur, to any material extent, more frequently or more markedly than in cases where this anesthetic was not used, nor were version and forceps required with greater frequency. The vomiting could only have been accidental, since it did not occur in Gauss' cases, excepting when it had commenced before the anesthetic was given. So also as to the perils to the child; Gauss showed that the mortalities of both mother and child were much less than they had been before this anesthetic was employed.

The extract, as presented in *The Journal of the American Medical Association*, gives palpable evidence of anxiety to make out a case against this anesthetic method. Even Gauss is made to rank as an objector to the method, by quoting eight troublesome cases which occurred, out of his one thousand; just as if such things never happened unless scopolamine was employed. To any one who wants the whole truth, and not a garbled *ex parte* statement, we refer to Gauss' statistics as given by Holt, in the May number of *The American Journal of Clinical Medicine*. But even were the account given a fair one, the reader will note that it nevertheless relates to the use of scopolamine, which, as commercially presented, *is not the same thing as the hyoscine used in America*. It is much as if men should insist that, because Germans injure themselves drinking too much beer, we in America should abstain from coffee.

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The above being the gist of our knowledge of this subject to date, and the therapeutic difference between hyoscine, a true alkaloid, and scopolamine (or so-called hyoscine from scopola—a serious error of nomenclature), a mixed, uncertain product, being well established in favor of hyoscine, we caution our readers who are interested (and all should be) to use only H-M-C Abbott (hyoscine, morphine and cactin comp.), the original American product and one which, like all the Abbott line, may be depended upon.—*The American Journal of Clinical Medicine.*

The Canadian National Exhibition.—The forthcoming Canadian National Exhibition will be the 29th of the annual series held in Toronto. August 27th will be the opening day, and Earl Grey has generously consented to officiate—that is, to touch the button and make the dedicatory speech. His Excellency will probably be supported by three of the most prominent men of the day, to wit, Lord Milner, formerly High Commissioner in South Africa, the Right Rev. Dr. Winnington-Ingram, Bishop of London, and Keir Hardie, the famous labor member of the Imperial Parliament. The leading fact in connection with this year's Exhibition is that no less than four hundred thousand dollars' worth of new buildings will for the first time be devoted to exhibition purposes. These are the Grand Stand, said to be the largest and finest in the world, erected at a cost of a quarter of a million dollars, equipment included; the Agricultural Building, a comprehensive structure that has involved an expenditure of $100,000, and occupies the most commanding site on the grounds, namely, the eminence on which formerly stood the Main or Transportation Building, destroyed by fire last fall, with the Grand Stand, and a handsome building that is to be devoted to railway and Ontario Government exhibits, and that has cost a round $50,000. A new band-stand and other necessary improvements will bring the total spent on exhibition buildings this year close up to $450,000. Naturally, all this will be a great factor in the success achieved, but apart from this, the directorate has made arrangements for music, for a fine-art display, for an industrial exhibit, for the production of a spectacle, "The Battle of Badajos," on a scale of unusual magnitude and splendor, and for a high-class entertainment that warrants the expectation of a record in every department. Briefly, the preliminary financial statistics of the coming Canadian National Exhibition in Toronto may be placed at: New buildings, $450,000; premiums, $45,000; special attractions, $40,000; total investment this year, apart

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from running expenses, $535,000, which, to pay a dividend of 10 per cent., as has been earned in other years, means that a surplus of $53,000 must be forthcoming, to say nothing of the earning power of the $1,200,000 previously put into this now gigantic institution.

Battle & Co's pamphlet contains the second of the series of dislocations. These will be sent to physicians, free, on application.

A Blend of Harmonizing Drugs.—The above condition has been fulfilled in Sanmetto—its ingredients harmonize, forming a most perfect blend of the santal and saw palmetto with soothing demulcents and well-chosen aromatics, resulting in a soothing, healing and restorative remedy for the diseased genito-urinary economy, at once efficient and adapted alone or in combination with other drugs.

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In the treatment of the chronic skin inflammations, following in the wake of attacks of toxic dermatitis, attention to the general condition of the health, avoidance of anything irritating to the skin, a carefully selected diet and proper care of the skin are important features which must not be neglected. In addition, Battle's preparation of echinacea augustifolia and thuja occidentalis, which goes under the trade name of Ecthol, should be used both locally and internally; a drachm should be taken four times a day—*American Journal Dermatology.*

Flatulence.—Have had splendid results from the use of Glyco-Thymoline in cases of flatulency. In one case of long standing the patient, a lady, could not go into company because of eructations that came every few minutes. The patient was put on Glyco-Thymoline and Liq. Peptonoids, equal parts. Two four-ounce bottles effected a complete cure. I have used Glyco-Thymoline (Kress) in cases similar to the above, always with good results.—*C. E. Anderson, M.D., St. Louis, Mo.*

Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXIX. TORONTO, AUGUST, 1907. No. 2

Original Articles.

STATIC ELECTRICITY AND X-RAY IN GENERAL PRACTICE.*

By R. M. Calder, M.B., Petrolea, Ont.

In introducing this subject I feel under obligation to apologize for its wide scope, but it will permit me to make some general remarks, and bring before you a few cases, some of which received a combined treatment of static electricity and X-ray. In this short paper I shall not endeavor to treat this subject from the scientific standpoint of the electro-therapist or radiologist, but from the ground of utility to the surgeon and general practitioner. Perhaps I could not more aptly demonstrate the uses of static electricity and its various modalities, than to use the illustration of comparing it with the use of some known drug, such as opium. We find that opium contains no less than eighteen different alkaloids, each possessing a specific virtue of its own. Then we have twelve officinal preparations, giving us in all thirty specific substances.

Now, static electricity has nearly as many modalities, each one with its own specific mode of application and therapeutic results.

Electricity is not all a mystery, but an agent capable of doing much good when properly selected and applied, but capable of much harm if improperly made use of. All that may be said of drugs applies equally to electricity, and *vice versa*. Electricity.

*Read at May Meeting of the Lambton Medical Association.

like any other single agent, is not a panacea for all the ills that flesh is heir to, but its indications are many. Much more would be accomplished by electricity were it not for the lack of interest, if not real prejudice, in the minds of many practitioners. At the present time the every-day life of a great mass of the inhabitants of all civilized countries is touched on every side by electric devices intended to do our work and help us in our pleasures. Within the memory of most of those here present, the telegraph, the telephone, the phonograph, the electric motor, the X-ray, and the electric light produced from the dynamo have come to be as common as the use of steam. It would be the height of absurdity for the medical profession to stand aloof, and refuse to accept the benefits to be derived from the scientific use of electricity in the treatment of disease, on the score of ignorance of its nature and powers. We have been glad to hail the many inventions and discoveries that have been of assistance to us in the business of life. Now, let us be equally glad for the accomplishment and promises of this wonderful fluid in the treatment of disease. The success of treatment by electricity depends, in most cases, upon equalizing and stimulating the circulation, and so improving the nutrition of the part or parts, or in its sedative effects upon the nervous system.

Now, without taking time to enumerate the many indications for electro-therapy, I will simply introduce a few of my cases treated during the last three or four years.

Case 1.—E. K., a boy aged about three and a half years, with right hemiplegia. His family history was not good, the father being a heavy drinker; one brother also suffered from paralysis of the flexor muscles of one foot. I began treatment, using the Morton wave current, August 4, 1904. During the first ten days progress was very slow, but by the end of two weeks he was able to use some of the muscles of his arm and leg, and by the 21st of September had practically gained control of all that side, though he couldn't talk as plain as before the seizure.

Case 2.—G. G., a little girl of sixteen months, with paralysis and atrophy of the muscles of both arms and legs. This followed six months after an attack of acute meningitis. In this case, also, I used the wave current, and occasionally the spark, treatment lasting from August 18, 1903, to Noverber 21. Partly on account of her not being able to take the treatments regularly, recovery, as you'll notice, was not so rapid in this case. Two or three times since that date this patient has threatened relapse, but nothing serious has developed.

Case 3 was that of a man thirty-five years old, a driller, who had returned from two or three years in the Far East. He had paralysis of the flexor muscles of the right foot, and came under treatment two or three weeks after the attack. In this case I relied nearly entirely on the spark, with an occasional treatment with the wave current. Treatment began Oct. 19, 1904, and by November 7 he was able to flex his foot nearly as well as the other.

Case 4.—Miss McC., a young lady with chronic synovitis. Fourteen weeks before coming under treatment she had been kicked by a cow just below the knee-cap. During this time she was under active medical attendance, consisting of poultices, evaporating lotions, blisters, etc. The knee was then twice its natural size, and the tendons behind the knee so drawn that she couldn't touch the toe on the ground. In this case I used a combined treatment, using the X-ray every other day, and the spark every day, for over five weeks. At the end of three weeks she was able to place her foot on the floor. One week later she could walk on it with the use of a cane, and at the end of five and a half weeks walked a mile without the use of a crutch or a cane.

Before saying more regarding the therapeutic action of the X-ray, I will refer to its use in diagnosis, etc. In the treatment of fractures great advantage may be gained as to the position of the end of the bones. It is also of great service where there is dislocation or impaction of a joint. There are three ways in which the case may be examined. First, the radiograph, where a permanent record is taken. Second, the fluoroscope, and commonest way of examination. Third, the screen, which, though it requires the room to be dark, has the advantage that two surgeons can easily confer as to the conditions present. As an illustration of the advantages of this method, I would draw your attention to radiographs Nos. 1 and 2. The first was a case of a boy of 4 1-2 years, who got caught in a disk-harrow. At the time I first saw him there was considerable swelling, and I could not be very sure of my work, so I placed temporary splints, and arranged to have him brought to my office next day. With the assistance of the ray I had no difficulty in bringing the bones into apposition.

In the case of No. 2, I took the radiograph partly as a safeguard. As you see, it was a green-stick fracture, and the boy coming to my office alone, I thought it best to have a permanent record, lest, after it had been set, doubt might arise as to its having been broken. There is no small degree of satisfaction in

knowing to a certainty that the apposition is correct and that every reasonable precaution has been taken, thus giving no cause for worry, or fear of legal action in case of failure.

Carl Beck, of the New York Post-Graduate School, recognizes to the full the advantages of X-ray examination in fracture cases, and has written many powerful articles on the subject. I saw him operate on a case of fracture of the thigh while we had the radiograph before us. In this case a weak union had taken place with the lower fragment displaced nearly two inches upward. He had very little difficulty in breaking this union and bringing the bones into proper apposition.

Plate No. 3 illustrates a faulty union in the tibia, which, by driving the fibula down, interfered very materially with the action of the ankle.

Another use for the ray is the location of foreign bodies. These may be classified into, 1st, those formed within the body, such as calculi; 2nd, those introduced through the natural openings, such as the nose, ear, mouth, rectum or urethra; 3rd, bodies introduced by force, such as needles, bullets, etc.

With the first two classes my experience has been very limited, but before passing I would like to draw attention to some illustrations along this line in the notable collection of skiagraphs exhibited by Dr. Cummings, of Hamilton, at the British Medical Association meeting in Toronto. He had a collection of skiagraphs, taken at intervals varying from a few minutes to hours, of a patient that had swallowed a quantity of bismuth.

In this way it is possible to diagnose stricture of the œsophagus, to map out the stomach, or locate an obstruction in the bowel.

The third class which I mentioned perhaps brings the ray into use more frequently than either of the others. It is often a very easy matter to locate bullets, needles, glass or other foreign bodies of this class, but when we come to extract them we are often surprised at the amount of trouble they give us. If it is possible to cut down at right angles on a needle, such as was possible in radiograph No. 4, there is little difficulty; but in cases such as illustrated by radiographs Nos. 5 and 6, where the piece is small and deep-seated, we sometimes find that less harm will come from its presence than the attempt to remove it.

In the case of a boy brought into the hospital a year ago last September with a hat-pin in his back, it took us considerably over an hour to extract it. The piece was three and a half inches long, and the approximal end an inch beneath the surface.

Radiograph No. 7 illustrates another use of the ray, that of

locating diseased bone. In this case the boy had stepped on a nail several months before, and though the wound healed up at the time, it began to trouble him later, and I was able with the ray to diagnose caries in the base of the 5th meta-tarsal bone.

Now, returning to the therapeutic action of the ray, it has been used in the treatment of almost all known diseases, and in the majority of cases some improvement, whether permanent or transitory, has been reported by some worker. As always happens, however, at the beginning of every new path of study, there is a great tendency to exaggerate results.

The cumulative action, at first not recognized, is now very generally understood, and instead of the exaggerated notions regarding extreme idiosyncrasy, a knowledge of the methods of employment, which has been learned by experience, makes its use relatively safe.

Numerous types of apparatus for measurement of therapeutic dosage of the X-ray have been presented for the consideration of the profession, with convincing arguments from the point of view of the inventors, but at the present time none of the devices can be counted as reliable. The Chromometer of Benoist has perhaps met with the most favor by specialists in this line. There are two important factors to be taken into consideration in the determination of X-ray dosage. First, it is a well-recognized fact that the X-rays projected from a high-vacuum tube have an intensity relative to the greater degree of potential required to overcome the resistance of the tube, and characteristically a greater capacity for penetration. Second, an equal number of rays from a low-vacuum tube have always a degree of penetration relative to the vacuum. The operator who is daily engaged with his X-ray tube becomes familiar with the quality of fluorescence, the relative intensity and volume of radiation, and his judgment, with systemic regulations of periodicity, time distance, and fluorescence, is the best guide for therapeutic dosage.

Now, to refer to some of the diseases in the treatment of which the X-ray holds an undoubted position, I will mention first some troubles of the skin, such as eczema, ringworm, favus, sycosis, acne, etc. I have now under treatment a case of psoriasis in which I am using the ray in connection with the brush discharge, with very pleasing results.

I come now to that all-important disease, cancer. Although many inoperable cases have actually been reported cured by reputable authorities, still we cannot yet hold out the hope that X-rays have proved themselves anything like a specific. But

this we may almost certainly say: they will allay pain and arrest discharge, while very frequently causing a retrocession of the primary growth.

Epitheliomata are considered by such authorities as Belot, Freund, Pusey and Seguira to be very amenable to treatment, and this is to be expected, as the more superficial the growth, the more easily it is reached.

I have had some interesting cases of papillomata. One was that of a man, thirty-five years old, with a highly vascular growth, about the size of a five-cent piece, on his left cheek, and having developed within a period of about two months. With fifteen treatments of the ray it entirely disappeared. Another was that of a horn-like growth on the nose of a woman of fifty. This took considerable time, requiring some twenty-two treatments. Rodent ulcer and lupus are very amenable to treatment, though, as in other troubles, failures may be met with. I have a case of lupus now under treatment. The woman came to me a week ago for consultation regarding some enlarged glands. She has a tubercular family history, and has had tubercular glands removed from her neck.

Another disease that has been greatly benefited by the X-ray is leukemia. A very interesting case is reported by Ironside Bruce in the *Lancet* of January, 1906.

While I had some other cases I had intended reporting, I have now taken more time than I intended, so will reserve them for some future occasion.

ALCOHOL AND LIFE INSURANCE.*

By T. F. McMahon, M.D., Toronto.

I am not a teetotaller, neither am I a prohibitionist. I have therefore approached the study of the influence of the use and abuse of alcoholic beverages upon the human economy without the handicap of strong prejudice against their use. The extreme position taken by many honest, but narrow-minded, teetotallers has done incalculable harm to the cause of temperance. To call alcohol a poison, and to say it must therefore be used only for medicinal purposes, and that its use, even in moderation, is harmful and poisonous, is not in harmony with the teaching of either

*Read before the Ontario Medical Association, May, 1907.

science or theology. There is no substance which is everywhere and always a poison. The term is a relative one, and there are many substances which, used in excess, deserve to be ranked as poisons whilst their moderate use may be harmless, useful, or even essential to bodily health.

I do not propose to discuss the desirability or otherwise of the employment of alcoholic beverages as foods. I think we may accept it as being the consensus of opinion amongst scientists who have given the matter careful study, that, whilst alcohol is a true food, supplying heat and energy in its combustion, yet it is not a practicable source of energy in the performance of muscular or mental labor. It has its field of usefulness in certain diseased conditions; for, instance, as a stimulus to appetite and digestion in aged and debilitated, and to tide over a crisis in grave diseases when the power of digesting other foods is temporarily impaired. But the healthy man does not need it. If he chooses to use it in strict moderation, to make glad his heart, or soothe his nerves, or as an adjunct to social life, he may do so without injury to his health, and if he would avoid all evil effects he must take care that the amount habitually taken must be very small, and he must guard carefully against the danger of insidious increase of dosage.

There is much evidence to point to the restorative influence of a small amount of alcohol after severe physical or mental exertion, or after prolonged exposure to cold, but nearly all are agreed that, until our work is done, we are better without it, and that, " in all those avocations of life where keen senses, sharp attention, the ready and immediate action of a clear judgment, or great concentration of the mind are called for, alcohol in any form or amount is injurious when taken during the performance of the duty in hand. He who has mental labor of an exacting kind to perform, and he upon whom great responsibilities devolve, is forced, if he would be at his best, to use alcohol as a restorative agent only at the proper season; he must behave to it as he does to many other pleasures and luxuries in his environment " (John J. Abel, of Baltimore).

All this does not involve the necessity of total abstinence. In the judgment of many the discipline of moderation is better than the discipline of abstinence, and the evolution of an efficient self-control will prove humanity's best safeguard against the vicious tendencies of alcoholic indulgence. So far as the influence of the strictly moderate use of alcohol upon an applicant for life insurance is concerned, it is not my purpose to contend that

such a user of alcoholic beverages is a less desirable risk than a total abstainer. The man who drinks a glass, or even two glasses, of wine or beer a day, is not, in my opinion, a less desirable risk than one who drinks none at all, except for this, that an abstainer is perhaps less likely to become an immoderate drinker than one who becomes habituated to its use in moderation. He is less exposed to the temptations of the club and the bar-room, and there is thus, perhaps, less danger of contracting vicious habits. But those of us who have had much experience in life insurance examinations know how difficult it is to draw the line between moderation and excess. Many who pride themselves on their moderation, and who would be indignant at any suggestion that the amount they consume is in excess of the limits of safety, are in the habit of drinking, not one or two, but half a dozen or more drams in the course of the day. Their appearance, and the results of physical examination, give no indication that they are other than good risks. They resent close questioning as to their habits in this regard, and the examiner who probes too deep is likely to give offence and drive the applicant away to some other company. Complaints from the agents follow, and he soon finds himself supplanted by an examiner less likely to give offence. The fact is, that no examiner can always distinguish moderate from immoderate drinkers, and hundreds of risks are taken on men who habitually use alcoholic beverages in such amounts as to render them undesirable risks likely to abnormally swell the mortality.

The only scientific division, *i.e.*, into (*a*) Abstainers, (*b*) Moderate drinkers, (*c*) Immoderate drinkers, is not practicable. No company will, knowingly, accept a risk on the immoderate drinker.

A classification into (*a*) Abstainers, (*b*) Strictly moderate drinkers, (*c*) Those claiming or believing themselves to be moderate drinkers, who, nevertheless, use alcohol in such amounts as to render themselves less desirable as risks than classes (*a*) and (*b*), would be ideal, but unfortunately it cannot be made to work out in practice.

If, therefore, there is to be any classification of the assured along this line, the only practicable one is into, (*a*) Abstainers, (*b*) Non-Abstainers.

Is this classification necessary or desirable?

If the life expectancy of the average abstainer is higher than that of the average drinker who does not drink in such amounts as to make him unassurable, it is surely only fair that abstainers

should be separately classified, so that he may enjoy a lower rate on non.-par. policies and share in the greater profits accruing on the lives of abstainers in the participating class.

To obtain reliable information on this question it is necessary to examine the records of the companies which have for many years carefully tabulated their experience along these lines, for thus only can we hope to obtain anything that is of greater value than a mere opinion, which is too apt to be based on personal prejudice.

The first of the companies to make a separate classification of its risks according to their non-use or moderate use of alcoholic beverages, and the one having the widest experience in so classifying its risks, is the Temperance and General Provident Institution of Great Britain. This company was founded in 1840, and has recently issued its 66th annual report, for the year ending Dec. 31, 1906. From this report we learn that for this year the company had experienced a loss ratio of 64.79 per cent. of the theoretical expectation as to the number of lives, and 53.49 per cent. as to the amount of loss in its abstainers' section, whilst in its general section its loss ratio was 86.07 per cent. as to the number of lives and 81.62 per cent. as to the amount of loss.

To make these figures more striking, let us suppose that 10,000 deaths were expected to occur in each section according to the Standard Table: The actual loss would have been 6,479 lives in the abstainers' section, and 8,607 lives in the general section, an excess of the latter over the former of 2,128 lives.

The bonus additions declared in this year for the five preceding years ranged from £105 to £213 on each 1,000 in its abstainers' section, whilst in the general section they ranged from £87 10s. to £155, according to the duration of the policies.

I have before me a tabulated statement of this company's experience for the forty years from 1866 to 1905, inclusive. This statement shows that the number of the company's expected losses under whole life policies for the whole period was 10,463 and its actual losses 7,484 in its temperance section, while the number of its expected losses was 13,514 and the number of its actual losses was 12,811 in its general section.

These figures indicate that during a period of 40 years, out of every 100 expected losses in its temperance section 71.5 losses occurred, while out of every 100 expected losses in its general section 94.8 losses occurred during the same period. The actual saving as to number of policies (which may fairly be presumed to indicate number of lives) was 2,979 in the temperance, while

in the very much larger general business it was only 703. With the same rate of mortality in the general section that was experienced in the temperance section, there would have been a saving of nearly five and one-half times the number of policies that were actually saved to the company in its general section through mortality being lower than the theoretical expectation.

On the 30th of November, 1903, Mr. Roderick MacKenzie Moore, a prominent British actuary, read a lengthy and exhaustive paper before the Institute of Actuaries of Great Britain, on, "The Comparative Mortality Among Insured Lives of Abstainers and Non-Abstainers from Alcoholic Beverages." This paper was based on the experience of The Temperance and General Provident Institution, and in compiling it Mr. Moore had under review 31,776 lives of non-abstainers, passing through 466,942 years of life, and 29,024 lives of abstainers, passing through 398,010 years of life, taken from the same classes of people, following similar occupations, and differing only in their habits as regards the use of intoxicants. This address was undoubtedly the most interesting and valuable that had ever been prepared on the subject, on account of the ability of the writer and the reliability of his sources of information. I would like to quote largely from its pages, but I shall only call your attention to two of Mr. Moore's conclus ons which are contained in this statement, viz., "Abstainers show a marked superiority to non-abstainers throughout the entire working years of life, for every class of policy, and for both sexes, however tested," and to the following table, which indicates the greater chances that abstainers whose ages are written across the table have of reaching the ages at the left-hand side of the table than have non-abstainers. For instance, the table shows that the man who is an abstainer age 40 has 26.86 per cent. better chances of reaching 80 than the man who is not an abstainer.

Ages to be Attained.	Ages at Entrance.				
	20	30	40	50	60
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
40	3.55	3.05	....	....	....
50	8.90	8.39	5.18	....	....
60	16.21	15.66	12.23	6.71	....
70	25.9	25.14	21.65	15.66	8.39
80	31.37	30.74	26.86	20.62	13.04
90	31.36	30.70	26.89	20.62	13.03

Writing for the *Contemporary Review,* in March, of 1906, Mr. Thomas P. Whittaker, M.P., managing director of the company, said, " Taking the mortality of the abstainers and the non-abstainers as a whole, from ages 10 to 95, the superior mortality of the abstainers is very marked. The mortality in the general section was, on the average, 36 per cent. higher than in the temperance section."

The mortality of the temperance section was not only very strikingly lower than that of the general section in the institution, but it was much lower than that of the assured lives in other offices, as shown by the Hm. and Om. tables taken as a whole. Over the period of 61 years, it was 30 per cent. lower than that shown in the Hm. table, and 25 per cent. lower than that shown by the Om. table.

I have quoted the experience of The Temperance and General Provident Institution of Great Britain because it has had the longest and widest experience in this connection of any company in the world, and because the results of its experience have been more fully dealt with by experts of the highest attainments and character than those of any other company. The experience of every other company following the same methods of classification which has had any considerable amount of experience has been very similar, as will be seen from the published evidence, some of which is as follows: The report of the Selphre Life Association, of London, England, submitted to its annual meeting, held on the 28th of February, 1907, shows that during a period of twenty-three years from 1884 to 1906, inclusive, its expected losses in its general section were 2,798, and its actual losses 2,211, being 79.02 per cent. of the expectancy, while in its temperance section its expected losses were 1,796 and its actual losses 967, or 53.90 per cent. of the expectancy.

The latest report of the Australasian Temperance and General Life, covering a five-year period, shows the experience of that company to have been that while a mortality of 81.4 per cent. of the expected mortality was experienced in its general section, a mortality of only 50.1 per cent. was experienced in its temperance section.

During the twenty years from 1883 to 1902, inclusive, the Scottish Temperance Life Assurance Company had a mortality of 71 per cent. of the expectation in its general section, and 45 per cent. in its temperance section, and a recent letter from the manager says that its subsequent experience has been very similar to that already published. If where 45 deaths occurred amongst

abstainers, 71 occurred amongst non-abstainers on an average for twenty years, then where 100 occurred amongst total abstainers 158 must have occurred amongst non-abstainers, making the loss ratio amongst non-abstainers 58 per cent. higher than that amongst abstainers in the experience of this company. It is no wonder, then, that its rates to total abstainers for whole life policies are 10 per cent. lower than its general rates.

I come now to the experience of Canadian companies on the same lines. The Temperance and General Life, which was the pioneer in this field, had a very successful experience as an independent company from 1886, when it began business, till 1901, when it was amalgamated with the Manufacturers Life. Since the amalgamation the two sections have been maintained, with a similar experience, so far as the very favorable mortality experience shown by its abstainers' section is concerned, as is shown by the annual reports and other publications by the company.

The report of Mr. T. Bradshaw, vice-president, actuary and managing director of The Imperial Life, on the position of The Temperance and General Life Assurance Company, made while the question of amalgamation with The Manufacturers Life was under consideration, contains the following statements: "An examination of the figures cannot but prove that The Temperance and General has enjoyed a very favorable mortality experience, one markedly below that of any other Canadian life insurance company similarly situated in respect to age, that I have examined, and the officers who have selected the risks are to be highly commended for the great care and skill with which they have performed their duty. I have had an opportunity of examining into this company's death losses in its temperance and general sections separately. The experience of the temperance section fully confirms the investigations made by several eminent actuaries and certain life companies, that risks on the lives of total abstainers, carefully selected, carry with them a markedly lower rate of mortality than do those on the lives of ordinary insurers."

"Should the companies unite, it would, in my opinion, be absolutely essential, in the interests of the different classes of policy-holders, to keep the business in three sections, so that the temperance policy-holders would not be bearing the heavier mortality of the general section, nor yet the still heavier mortality of the foreign section." Such, then, is the result of my examination of the figures of some companies who have made a separate classification of abstainers and non-abstainers. I have not been

able to obtain any results from such companies which are contradictory.

We are all familiar with the immoderate drinker who tries to get insurance. Too often he succeeds by making statements which are untruthful, or, at best, half-truths. We can keep out the men with cardiac, or tubercular, or renal disease by exercising great care; but some immoderate drinkers defy detection, and it is precisely this class who are most likely to become addicted to gambling, late hours, chambering and impurity.

Most companies refuse, except under exceptional circumstances, to take risks on gamblers, book-makers, professional athletes, all-around sports, and on those actively engaged in the manufacture or sale of intoxicants. If abstainers as a class show a lower mortality rate than non-abstainers, it is but fair that they reap the advantage.

If it be argued that the large companies do not make the separate classification, I would point out that bigness is not always founded on merit, and that the recent New York State investigation has shown that the largest concerns have been the most rotten at the core.

MAXIMUM DOSES.*

By T. S. C. Smellie, M.D., Fort William, Ont.

I propose to bring before your notice three cases of poisoning occasioned by enormous doses of drugs taken by the respective victims without medical supervision, without suicidal intent, and in complete ignorance of any hurtful consequence of their imprudence. All the patients recovered.

The first case was that of E. H., a woman of from 25 to 28 years of age, who had previously applied to me without success for some preparation of belladonna as a remedy for amenorrhea. As she was of florid complexion, plump figure, enjoying good health, without cough, and reporting no unfavorable family history, I refused to prescribe, and advocated merely hygienic measures and some little delay. This latter portion of the advice was based on the fact that it is a very common thing for females coming from the East to the Lake Superior country to miss from three to five menstrual periods without suffering any inconvenience and without having been guilty of any imprudence. If such per-

*Read at Ontario Medical Association meeting.

sons, who are usually very anxious about themselves, can be induced to leave themselves alone, they resume regularity without the assistance of any medicine or any interference.

Within three days I was hurriedly called in to see this woman, who was reported to be in convulsions. On my arrival a neighbor woman gave away the whole story. The girl had purchased an ounce package of belladonna leaves at the drug store, had made a pint of infusion, and had swallowed the whole brewing. The paper cover of the package was then fished out of the woodbox, and a look at the teapot and its contents confirmed the whole story. Evidently all the leaves had been used, and only an ounce or so of the infusion remained. The patient's skin, usually of a pronounced pink and white, was a deep crimson, approaching a purple color, the pulse was rapid and small, and the pupils were dilated to their utmost extent, twitching of the whole body varied occasionally by convulsions was to be seen, and severe vomiting began almost from the swallowing of the dose, which latter circumstance probably saved her life. Stimulants and emetics were persistently used. She was out of apparent danger in about fifteen hours, but she took about a week to make a full recovery. Within a day or two of convalescence substantial evidence of a case of incest subsequently arose, and this was evidently the cause of the woman's anxiety to procure and use the drug with felonious intent.

As showing how differently this drug may act on different people, I may mention being suddenly called in to see a lady patient some years ago, who declared that she was choking and going quite blind. In making up a tonic for her a day or two before, I had added drop doses of the tincture of belladonna for chronic constipation. The dose was to be taken before meals, and she had taken but four doses. I advised her to discontinue the medicine as unsuited to her constitution, and told her that all disagreeable symptoms would shortly disappear, which of course was the case. There was dilatation of the pupil, but no affection of the skin.

The second case of overdose was that of a man who asked me for a powder to stop cramps and diarrhea resulting from a spree. I prescribed two powders of pulvis opii, one grain each; the first dose to be taken at noon, the other at supper time, if needed. I was just setting off to reduce a fractured thigh, so I heard nothing more of the case until early next morning, when I was told that the patient had snored all night and would not waken up. One glance at him and the smell of his breath showed that it was a case of opium poisoning. I found on examination that

the druggist had handed over the prescription to a young apprentice, who put up two powders of one drachm each, and that the prescription had never been checked by the druggist.

The patient had taken the first powder at noon as directed, which was eighteen hours previous to my visit, and as the people in the house said he seemed too sleepy to take the second one at supper time, he had never taken it at all. The landlady told me that she had given him the whole of the first powder herself, and that he had swallowed it all. A look at the remaining powder and the condition of the patient made me gasp. The pupil was all but obliterated, the pulse was slow, sluggish and undecided, he was quite insensible, and his respirations were only six to the minute. The eyes were closely shut, the mouth wide open and the breathing was loudly stertorous. We could partially arouse him for a moment occasionally, so we gave him drachm doses of ipecac every ten minutes. and at speedy intervals filled him up with copious supplies of lukewarm water, and subsequently of strong coffee. In a very short time he vomited energetically, and the pulvis opii was plainly perceptible in the ejecta. The whole room was filled with the aroma of poppy, and we soon had evidence of the patient's having got rid of a large portion of the powder. We plied the ipecac and warm water industriously, as we had no stomach pump, and no means at hand of extemporizing one. His breathing gradually improved and he became imperfectly conscious. Then we walked him up and down the room for two or three hours and spanked him heartily at intervals until our palms ached; then we sat down to a memorable ten hours' spell of euchre, relays being provided for all the players except the patient. Many a dozen times we had to shout, "It's your play again, Jack," and at last thirty-six hours after the swallowing of the monster dose, he was allowed to lie down, presided over by an attendant who was cautioned to watch symtoms closely and wake the patient up every half-hour and make him give some more definite and compromising answer than a mere yes or no. Recovery was speedy and satisfactory.

The man was forty-five years of age, never had been sick in his life, and this was his first dose of medicine. He swore on recovery that it would be his last. He is now hale and hearty, and about seventy years of age. I have reason to know that he has faithfully kept his promise.

The third case was that of P. C., a chainman on the C. P. R. preliminary survey between Port Arthur and Chapleau, who dis-

solved and swallowed an ounce of sulphate of zinc in mistake for sulphate of magnesia. He used a large tablespoonful, which would weigh at least an ounce.

The medicine chest usually carried by these early survey parties on the C. P. R. route consisted merely of a few surgical needles, a spool of silk and some adhesive plaster, together with a dozen or two bottles of Perry Davis' Painkiller, two or three pounds of salts, a little sweet nitre and laudanum, some cathartic pills, and a dozen of porous plasters. When the party was to remain out in the bush all winter they usually added a small parcel of sulphate of zinc for the benefit of those who became afflicted when strong winds blew and a hot sun shone down upon the pure white and freshly fallen snow, and its rays were directly reflected into the eyes of the men, who were on foot from morning to night. Thus it was that the mistake occurred, hundreds of miles from any doctor. The error was soon discovered, and the only remedy his friends could think of was to give him salt and water. With the aid of the brine and the action of the zinc he was speedily relieved of all the contents of his stomach, and symptoms of collapse followed. There was a good flask of whiskey among the stores, and as he was no enemy to the beverage when well, there was no difficulty in this emergency in inducing him to swallow the whole flask in divided doses. He made a quick recovery and was all right again in two or three days.

These things all occurred more than twenty-five years ago, and we hear of no such cases now in that country. A reason for this may be asked. A very brief sketch of the history of medicine in the Lake Superior district of Ontario thirty years ago will probably answer the question. In those days of unexplored hills, trackless forests and roadless districts there were no doctors during the winter season, though an occasional medico was procurable during the season of navigation. Medically, therefore, as well as morally, every man did that which was right in his own eyes, and thereupon resulted an audacious handling of drugs that would horrify the modern doctor or druggist. With the opening up and settling up of the country arose a new order of things, and then began an arduous time for the pioneer physician. A trip of two hundred miles was undertaken in the early days of the operation of the C. P. R., on a freight train, to a confinement in which the woman had been already in labor for twenty-four hours. After a toilsome journey of twenty-four hours more, an instrumental delivery under chloroform saved the

lives of a thoroughly exhausted woman and child. In the same season, at the end of a walk of eighteen miles, where there was no road, and only a blaze through the forest, a primipara, thirty-eight years of age, and the previously undiscovered victim of cancer of the rectum, was, after being chloroformed, delivered of a child by turning.

On another occasion, an amputation of the leg, also under chloroform and without any skilled assistance, was performed at the end of a lonely journey of thirty miles over a stiff up-grade on a railway velocipede. Journeys of from fifteen to twenty miles on foot after roads and clearings had been left behind were of no infrequent occurrence in the middle hours of the night, without moonlight or lantern or company, and only the stars shining down into the narrow path cut through the forest to keep one from straying into the trackless wilderness. When miles away from any habitation, with none to give needed assistance, and the temperature far below zero, a man practically took his life in his hands. When summer came, and the dread of intense cold removed, all that greeted the midnight practitioner was the hum of millions of the ubiquitous mosquito or the croak of the cheerful frog. This would sometimes be varied by the dismal hooting of a solitary owl or the growl of some prowling black bear. Under such circumstances, could it be wondered at, that in desperation through the want of medical assistance the early settlers occasionally took large chances in their unceremonious handling of dangerous drugs.

Circumstances have happily changed. The pioneer doctor, whose pre-requisite for usefulness was physical strength and resolute self-endurance, has been replaced by the well equipped modern physician, who is within comparatively easy distance of his patient, and who, untrammelled by extra fatigue, is able to give the best product of both mind and body to his unfortunate patient. The district is now filled with young medical men, who are not only thoroughly equipped for their life-work, but many of them have received a liberal education entirely outside of their immediate calling, a goodly number of them being graduates in Arts of their respective universities. Much may be expected of these men who "go forth to war" against accident, pestilence and disease fully prepared for all that may be before them. It is now theirs to command success under reasonable conditions, while the doctor of a quarter of a century ago, experiencing defeat where he should have had success, could only say, by way of unsatisfactory excuse, that he had done what he could.

WINGHAM GENERAL HOSPITAL.

A new General Hospital was opened in Wingham the first of February last. For some time the need of such an institution has been apparent in the town and adjoining country. Wingham's rapid growth as a manufacturing centre, its distance from any similar institution, its excellent railroad facilities, and its prosperous surrounding country, made it desirable that some suitable provision should be made for the care of the sick and afflicted. With this object in view a number of prominent citizens took up the matter, and there was found to be a very general public sympathy with the movement to establish a public hospital. A list was circulated, and very soon some $8,000 was subscribed. The undertaking was liberally assisted by many Wingham "old boys," and a large number of wholesale houses doing business with retail merchants in the town, and also by the County of Huron and the Wingham Town Council. A commodious private residence, a three-storey brick building, containing some twenty-two rooms, was secured. It is an ideal spot for a small hospital, being situated on the highest point in the town and in one of the most quiet and secluded spots, surrounded by a spacious lawn and beautiful shade trees. Dr. R. W. Bruce Smith kindly looked over the building and made many valuable suggestions in regard to changes required and the remodelling of the interior to make it suitable for hospital purposes. An energetic Hospital Board was appointed, who took the matter in hand, making such alterations and improvements as were necessary to afford accommodation for public, private and semi-private patients. The interior of the building was completely overhauled. A splendid system of hot water heating was installed by Philip Gies, of Berlin, which has proven eminently satisfactory; the plumbing by the Jas. S. Robertson Co., of Toronto.

The hospital has been beautifully furnished, nearly all the furnishings being given by private individuals. Messrs. Walker & Clegg furnished the reception room handsomely with beautiful leather-covered mission furniture of their own manufacture. Mr. Thos. Bell, President of the Board, Mr. John Leslie, of Winnipeg, Mr. Wm. Britton, of Orangeville, Mr. Jos. Walker, of town, each furnished private rooms. The Canada Furniture Manufacturers furnished the dining room complete. The proceeds of Rev. Father Tobin's lecture furnished the Loretta Ward, a surgical ward for women.

The Hospital Board reserved the right to have placed uniform institutional beds in all the private rooms and wards.

The operating room was fitted up and furnished by the Board at a cost of over $500, and is certainly very complete for so small a hospital.

The "White line" operating table, No. 2, was secured with the Mayo instrument rack attached. The sterilizer, which cost $190, and, in fact, all the furniture in the operating room, excepting one small table for dressings, was manufactured by the Scanlan-Morris Co., of Madison, Wisconsin, and has proven to be very satisfactory. Since opening the hospital, Dr. D. M. Gordon, of Lucknow, has kindly donated an additional porcelain-top instrument table.

It is estimated that building, grounds and furnishings are worth in the neighborhood of $15,000.

A Ladies' Auxiliary of nearly three hundred members has greatly assisted the Board in furnishing linen and many other necessary supplies. The hospital has accommodation for twenty-five patients, and is open to all physicians in Wingham and the surrounding country. Over sixty patients have been admitted since the opening in February last, and at the present time twelve patients are under treatment in the institution.

Miss Katherine Stevenson, of Orangeville, a graduate of Buffalo Hospital, is Lady Superintendent. She is ably assisted by Miss Eva Kelly, a graduate of St. Joseph's Hospital, London, and Miss Annie Densmore, a graduate of Bellevue Hospital, New York. In addition to these nurses, two probationers have recently been added to the nursing staff.

Wingham is justly proud of its hospital, and the opinion is freely expressed that before long it may be found necessary to enlarge the building for the accommodation of patients.

To Dr. J. P. Kennedy, who took the initiative in the matter, largely belongs the credit of its successful establishment.

If a patient gives a history of "sprained wrist" that has remained feeble and painful in spite of appropriate treatment for sufficient time, and if the wrist presents thickening and tenderness at its radial aspect, a diagnosis of fracture of the scaphoid should be entertained. Colles' fracture must be excluded, by the relation of the two styloid processes and the location of the deformity. Fractures of the radius and scaphoid may, however, co-exist. —*American Journal of Surgery.*

Clinical Department.

Two Cases of Injury of the Ear Caused by Lightning. WILLIAM C. BRAISLIN, M.D., in the *Brooklyn Med. Jour.*

Observed cases of traumatism of the membrana tympani caused by lightning stroke are considered interesting enough to report in some detail. On the 30th of July, 1905, during a severe thunder-storm, a large bathing pavilion at Coney Island, crowded with bathers seeking shelter therein, was struck by lightning. Five persons were killed, one of these being a young man who, with the two ear cases about to be reported, was just entering the shelter between the couple. All the fatal, and most of the injured, cases were in the immediate vicinity of the base of a large flag-pole which projected high above the roof. All had just left the salt water, and were still in wet garments.

CASE 1.—Isaac G., aged 27 years, was first seen at the Brooklyn Eye and Ear Hospital on August 1, 1905, when he applied for relief of ear symptoms. Two days before he, his wife and several other persons were shocked by lightning, five of them fatally. This man was unconscious for three hours, and had suffered from painful burns and shock. On regaining consciousness he noted a fulness in both ears, roaring tinnitus and impairment of hearing in both ears. The hair was burned from the left side of the occiput. A seared burn appeared on the back of the neck, thence across the left shoulder-blade and down the left arm to the elbow. The burned area on the shoulder was a superficial, irregular mark, the size of a spread hand, purplish red in color.

Ear Symptoms.—These were noticed by both the patients immediately on regaining consciousness. In Case 1 the symptoms of tinnitus and impairment of hearing left the right ear within three or four hours, but became more marked in the left, and so continued until seen by the writer. In this case pain was also felt on the back of the auricle and at its attachment to the head. On the morning following the injury a blood-stained discharge from the left ear appeared, and was present at the time the patient came to the hospital. Examination of the drum revealed a perfectly round perforation 1-8 inch in diameter, slightly anterior to and below its centre, its edges reddened and raw as though a loss of its substance had occurred

at this point. The remainder of the drum membrane was pale. The following day the membrane presented an appearance of uniform redness, except at the margin of the perforation, where it was somewhat everted, raw and swollen. Healing proceeded uninterruptedly.

Mrs. G., wife of Case 1. Injured at the same time and manner as her husband, but less severely; was only momentarily unconscious. She immediately noticed that her hearing was defective; also a roaring tinnitus in both ears, worse in the left. She was examined on August 2. The drum membrane presented a small perforation, now sealed with a scab of fresh, blood-red, but dry extravasated serum. The perforation was in the centre of the drum just behind the umbo. The right ear in both cases presented no visible lesion.

As an explanation of the ear injuries, it is supposed by the writer that both were due to the presence of water in the ears, as both had just left the surf. Water, being a well-known, excellent conductor of the electric fluid, it is believed that a small charge of electricity followed a track of moisture in the external auditory canal, and thus in each case caused a perforation of the drum in finding its way to the Eustachian tube. Examination of these cases with Hartmann's set of tuning forks disclosed no lesion of the nerve or sound-perceiving apparatus, and both cases healed promptly under dry dressings, with only an inconsiderable impairment of hearing.

A CONVENIENT way in which the anesthetist may carry, all sterilized and ready for instant use, his hypodermic solutions, is the following: Shallow, wide-mouthed, half-ounce bottles are sterilized, labelled and filled. Over the mouth of each bottle is then stretched, and hermetically fastened, a cover of sterilized rubbber (dam). Before the narcosis is begun the anesthetist disinfects his syringe and sets these bottles in a dish of sublimate solution. This sterilizes the surface of the rubber. When a solution is wanted the needle of the hypodermic syringe is simply thrust through the rubber and as much as is needed is drawn into the barrel. The puncture hole closes without leakage. The covers of the bottles need to be changed only occasionally.—*American Journal of Surgery.*

Therapeutics.

Treatment of Nocturnal Enuresis.

George F. Butler, M.D., Chicago. If possible, remove any condition, or group of conditions, that may be found in each individual case to contribute to the malady. Nocturnal enuresis is a symptom only. The patient should be toned up with tonics, the best, perhaps, in these cases being the arsenates of iron, quinine and strychnine, given in small tonic doses—about 1-200 gr. of the strychnine and 1-60 gr. of each of the others, three times a day.

Exercise in the open air and in the sunlight, and even change of climate, is advisable in some cases. Cold baths, especially cold sponging over the spine and inside and outside the thighs; cold compresses to the perineum, and in obstinate cases, general massage are beneficial.

All sources of irritation, such as thread-worms, must be removed.

The urine should be tested, and if found to be abnormal, proper remedies should be given.

The diet should be regulated, care being taken with the evening meal, which should be light and easily digestible. No tea or coffee should be drunk. Strong animal diet is objectionable. Flatulence should be prevented, if possible. One-twelfth gr. to 1-10 of menthol, alone, or with the sulphocarbolate of soda gr. 2 1-2 will usually ally the flatulence.

Watch out for nocturnal fits, and if they occur, solanine gr. 1-67, upward, increasing the dose until the patient feels some irritation in the mouth or throat, will well replace the bromides. Suitable doses for the age should be administered, and proper hygienic measures instituted at once to stop the convulsions.

Disciplinary influence, but not scolding or punishing, should be brought to bear on the hysterical and mentally weak. Every indulgence that will minister solely or greatly to nervous excitement and emotional exaltation must be refused.

Be careful not to overlook organic diseases of the central nervous system or tumors in the pelvis.

Encourage the child to exercise his will power to overcome his trouble. It is a good thing to begin early to develop a child's self-control. That which most easily becomes a habit is the exercise of the will.

The child should pass his water the last thing before getting into bed, and if possible empty his bowels in the evening instead of in the morning. He should be properly clothed, so that he will be neither too hot nor too cold when asleep. The night-gown should be unirritating, the bed clothing not too heavy, and the mattress moderately hard.

He should never lie on his back during sleep. By attaching a spool or other body to the back he will turn over on his side, even when asleep, because the pressure of the spool will disturb him when he lies on his back.

Of drugs employed, atropine and strychnine meet with most favor. If the urine is concentrated asparagin, 1-30 gr. to 1-15 gr. every one or two hours; arbutin, 1-67 gr. to 1-30 gr. every half to one hour, or lithium benzoate, 1-6 to 1-2 gr. every hour or two, in plenty of water, will be found to be beneficial.

In the use of belladonna or its alkaloid, atropine, the drug should first be given in small doses, gradually increased, until the pupils are moderately dilated.

The physiologic action of the drug may be maintained for two or three weeks until the habit of "' wetting the bed" has been completely overcome, after which the quantity may be gradually diminished.

It is a good plan to give two doses daily, one after supper, and the other the last thing before going to bed. In this way the maximum action of the drug may be obtained at the desired period.

Strychnine should be given in small doses, preferably the arsenate, from 1-400 to 1-137 gr. several times daily; and perhaps the best way to give both strychnine and atropine in these cases is hypodermically.

The fluid extract of rhus aromatica, a drachm of it being given in diminished doses during the day; or ergotin, 1-6 gr., or cantharidin, 1-5000 three or more times daily (the latter particularly if due to atony), are often helpful.

For nervous children, and especially those who have had chorea, arsenic in full doses is one of the best remedies that can be employed. Indeed, in such cases the treatment applicable to chorea will prove markedly beneficial.

Very often enuresis is a chorea of the bladder. Many cases will be found to exhibit hyperesthesia of the urethra, epsecially of the prostatic portion, when it is explored with a bougie. This will subside under daily applications of europhen suspended in pure fluid petrolatum, and the enuresis will be cured.—*Medical Herald* and *Review of Reviews.*

The Treatment o. Chronic Bronchitis o Old People.

The chronic bronchitis of senility, accompanied not infrequently by an unhealthy state of the mucous membrane of the upper air passages, is dependent in part upon vascular degeneration and disturbed blood supply; but also to a very considerable extent upon a toxemia, which is almost universally present in old people.

One finds in the aged incompetent kidneys, imperfect digestion, incomplete emptying of the colon, lessened activity of the glandular secretions in the digestive tract; also one finds that the skin is harsh, dry or sodden, lacking in elasticity and in the natural activity of its glands, showing in fact a poor blood supply and also the effects of intoxication. In the lungs one expects to find a degree of emphysema, comparatively fixed chest walls, and therefore imperfect respiratory movements, all contributing to a lessened oxygen intake. One will usually find in addition that the heart is strained to propel a lessened quantity of poorly oxygenated and over viscid blood through narrow vessels. These facts, without further enumeration of details, may suffice to show that the respiratory function is overtaxed in the aged, that the resistance is lowered and infection made easy. Chronic bronchitis increases in the winter largely for the reason that delicate old people seek the warmth and confinement of the poorly ventilated house. Really the best method of treatment is hygienic and consists in systemic elimination while increasing the resisting power of the individual. A practical way of carrying out this method of treatment is to prescribe from two or three times a week a hot air cabinet bath, to be followed by sponging in salt water (not emersion in the tub); the regular irrigation of the colon, that the patient may escape the disadvantage of the absorption of toxic material, which so easily occurs in old people, upon the importance of which Professor Metschnikoff has justly insisted. Then the patients should sit in rooms thoroughly ventilated, with windows open even in winter. If too cold, furs may be worn, but pure air is absolutely requisite. The writer has had the pleasure of seeing, with scarcely an exception, improvement in all cases of chronic bronchitis in the aged subjected to this treatment, in many complete relief, although it will be seen that the treatment must be repeated year after year. Not only is the cough relieved, but the energy, usefulness and happiness of the patient are all equally advanced. It is occasionally necessary to advise the drinking of tar water or the use of small doses of potassium iodide. Cough mixtures

are particularly forbidden. The principles involved in this method are not limited in application to old people.—C. G. S., in *N. Y. S. J. M.*

The Treatment of Puerperal Eclampsia.

The treatment of eclampsia is still a theme which admits of much discussion owing to the various modes of ideas as to the real nature of its pathology, and as long as this latter is obscure and beyond the present state of our knowledge, so long will the condition be treated in as many ways. It has been called a disease of theories.

It is not intended to go into the etioligy of eclampsia, but under the term of eclampsia it may suffice to say that there are probably at least two classes of cases, viz.:

1. Where the kidney is primarily inflamed, and the case is one of poisoning due to imperfect elimination of toxins, the disease being really uræmia occurring during pregnancy; and

2. Where the production or absorption of toxins is excessive, the disease showing itself in degenerative changes in the liver and kidneys.

From the time of Bouchard it has been supposed that all pregnant women suffer more or less from the retention of certain poisonous substances in the blood. Evidences in suppprt of this are seen in the many disorders that may occur during the time of carrying. The tendency of to-day is to group a number of conditions under the general term, "toxemia," and to suppose that it arises from auto-intoxication. It is probable that any deviation from the path of the simple or hygienic living during pregnancy, especially when associated with a predisposition to or an actual disease of the kidney, and when there is in addition perhaps a highly nervous temperament or history of shock, that then the economy may lose its balance and break down. In these circumstances the products of metabolism are not eliminated, and some one or more of the disorders of pregnancy are liable to supervene.

Of the variety of conditions that may be grouped in this connection are excessive vomiting of pregnancy, nephritis, albuminuria, persistent headaches, visual disturbances, and the like.

The treatment of eclampsia is divided into the Prophylactic and the Curative.

The Prophylactic Treatment.

The prophylactic treatment of eclampsia, a subject of considerable importance, is one which is bound up intimately with what should be the routine treatment of normal pregnancy.

Much might be said about the hygienic treatment of pregnancy, and the need for it in all cases. It would be a good thing if the public and the profession alike realized that many lives would be saved if pregnant women would present themselves to their family physician on one or more occasions during the last two or three months of pregnancy for examination, for then, not only would the state of the urine as to the presence of albuminuria, but also other indications of a faulty economy, be brought to light, and, further, many cases of acute illnesses be prevented. It might well be urged that this "pregnancy visit" should become a custom. Cases of chronic nephritis would receive special attention, and the warning symptoms of a much more grave condition, as eclampsia, would come under notice and be the more readily dealt with.

At present it is only when the results of a toxæmia have been in existence some time that patients seek medical advice, a stage reached beyond which the ordinary hygienic regimen will often fail to divert from a threatening eclampsia.

The prophylactic treatment consists in a nutritious and simple diet with regular meals, exercise in the open air, avoidance of a hot atmosphere, suitable clothing, avoidance of tight clothing, and regularity of the bowels.

Curative Treatment.

Whitridge Williams says: "In the presence of actual eclampsia chloroform should be administered during the convulsive attacks in the hope of cutting them short, after which comparatively large doses of morphine should be given hypodermically, beginning with a quarter of a grain, and repeating it if necessary until three doses have been administered. Diuresis by the application of hot packs should be brought about. One drop of croton oil in one drachm of olive oil should be put into the mouth if the patient is unconscious. A thick cord or folded towel should be used as a gag. Food or medicine should not be administered by the mouth as long as the patient is unconscious, as in many instances particles find their way into the air passages instead of being swallowed, and later give rise to and inspiration pneumonia. When convulsions have once occurred, the pregnancy or labor, as the case may be, should be

terminated as soon as is consistent with the safety of the patient."

Edgar places the maternal mortality at from 25 to 35 per cent., and says; "no single treatment suffices. Many cases recover, no matter what the treatment, and many die, in spite of treatment. A combined treatment answers best, fulfilling the following indications:

1. To control the convulsions.

2. To empty the uterus under deep anæsthesia by some method that is rapid and that will cause as little injury to the patient as possible.

3. To eliminate the poison or poisons, which we presume cause the convulsions.

Edgar believes morphine to be harmful, and administers chloroform by preference to veratrum viride or chloral.

Norris thinks chloroform preferable to morphia in controlling the convulsions, while a drachm of chloral in an enema repeated three or four times if necessary in the twenty-four hours is always indicated. He practises venesection in the full-blooded primi-gravidæ when the pulse is strong and full and the face cyanotic. Norris relies on a very aggressive medical treatment to combat the spasms and eliminate the poison, and then, after sufficient dilatation of the os has occurred, to rapidly deliver with forceps so as to terminate labor.

The practice of the Rotunda Hospital is described by De La Harpe. Veit's treatment by large doses of morphine is adopted, whereas induction of labor is never performed, and forceps are only applied in very exceptional cases and when the head is already in the vulva. The treatment consists in:

1. Morphine, half a grain hypodermic injection, followed by a quarter of a grain, and given, if necessary, every two hours up to two grains and until sleep is obtained.

2. A large amount of water is given to drink, or, if unable to drink the stomach is washed out by three or four pints.

3. Two ounces of castor oil with three or four minims of croton oil.

4. The lower intestine is washed out by a rectal saline.

5. Diaphoresis is induced by covering with warm blankets.

6. Lying on side to prevent the saliva running down trachea.

7. Digitalis and atropine are given when necessary, on account of the weakening of the circulation and respiration.

8. Saline injections with phlebotomy in cases of plethora.

The statistics with this treatment show a mortality in the

hospital of 16.9 per cent., whereas during the period before it was adopted, from 1889 to 1892, it was 35.3 per cent.

Robert Jardine, who advocates the treatment of puerperal eclampsia by saline diuretic infusions, says that by prompt purging with salts, the use of diuretics, and a milk diet, cases of marked dropsy and the albuminuria of pregnancy, when they have reached the stage of severe headache, and presumably, he says, within an ace of having fits, can be saved from having eclampsia by this treatment. He quotes six such cases with satisfactory results. On the other hand, he says, when the fits are occurring, diuresis cannot be established quickly enough in the ordinary way, absorption by the stomach is almost in abeyance, and, even if it were normal, a good many hours would have to elapse before the action could be set up; hence, he says, the drugs must be given subcutaneously. For instance, in a comatose patient he pours four tablespoonfuls of salts into the stomach through a tube, gives an infusion of two pints, and applies a hot pack.

In the matter of the obstetric treatment, Jardine does not interfere if labor has not begun. During the first stage dilatation is left to nature if the fits cease, but if they recur he says the uterus should be emptied as quickly as possible. During the second stage delivery should be effected at once and under deep chloroform narcosis.

The mortality in the Glasgow Maternity Hospital, previous to fifteen years before (writing in 1901), by treatment with chloroform, chloral, bromide, veratrum viride, and morphine, was forty-seven per cent. Since the saline infusions have been added to the treatment the mortality has fallen to seventeen per cent. in over thirty cases.

The brief narration of the practices of the above authorities sufficiently exempifies some of the variations in the manner of treatment; it will now be instructive to consider in turn the different parts thereof, and give as far as possible their respective merits.

Chloroform.—This is used by itself, or else as a means of controlling the fits until morphia has begun to act. Herman can see no use for it, as there is no indication beforehand of an oncoming fit, and also during a fit the patient is unable to inhale it.

Morphia.—This inhibits metabolism, and so stops the formation of fresh poison, while large doses remove a state of spasm of the renal arteries, and so favor urinary secretion. Morphia

is given as long as a patient is restless. Veit has treated sixty cases by this method, with two deaths. Löhlein, in 325 collected cases, reported a mortality of 13.8 per cent. Herbert Spencer thinks highly of it, although Horrocks has not seen any good come of it. Herman uses it in preference to administering chloroform, as he thinks it safer to have the patient under its influence for several hours, and at the same time admits of the patient being put into a deep sleep without the presence of the doctor.

Chloral.—Like chloroform, but less powerful in its action, chloral is given to control the convulsions. It is administered in an enema in drachm dosage, and this may be repeated three or four times in the twenty-four hours if necessary.

Veratrum Viride.—Hirst depends largely upon veratrum viride for the relief of the arterial tension and the spasmodic contraction of the arterioles. It is given hypodermically in 10-minim doses every half-hour, after the first dose of 20 minims of the fluid extract, until the pulse is lowered to 60. It has been largely used in America, and by its administration the mortality is said by some to be as low as eight per cent.

Pilocarpinė.—In the hope of obtaining diaphoresis when other means have failed, pilocarpine is used by a few. But each writer recognizes the danger involved in its exhibition in producing œdema of the glottis. It is given hypodermically in a one-sixth grain dose.

Cathartics.—Nearly all authorities recommend that the bowels should be opened by purgatives—in the hope of removing much fluid from the system, and thereby ridding the tissues of poison, and also of lowering the arterial tension. Some, however restrict this form of treatment to the " pre-eclamptic " stage, while most administer powerful purgatives during the convulsive stage. The drugs most commonly used are calomel, castor oil, croton oil, and magnesium sulphate.

Saline Diuretic Infusions (*Saline Injections*). The injection of saline solution under the breast or into the abdominal wall is a fairly direct method of diluting the poisoned blood, and is, on the whole, less disturbing than the more direct venous injection. Saline infusion is a most powerful, though slow, diuretic; it also acts as a cardiac stimulant and as a diluent to the poison.

The advocates of this form of treatment do not use it to the exclusion of drugs, as morphine or chloral, where restlessness or fits occur, or where the saline does not produce a

marked effect, athough Jardine discontinues the use of morphine.

The saline solution consists of one drachm each of acetate of soda and chloride of soda to a pint of water. This solution, sterilized and at least 100 deg. Fahr., is run into the cellular tissue beneath the breast, or after delivery into the lax abdominal wall. The object of the treatment is primarily to "get the kidneys to act." In eight cases quoted by Reginald Dunlop, where saline infusion was used, diuresis was equal to or in excess of the normal quantity within twenty-four hours.

Saline treatment also benefits collapse, as may be seen not only in cases due to hemorrhage, but in those where, after a lengthy operation, there has been practically no loss of blood. Infusion treatment is not recommended when the patient is very œdematous, or if there has been marked cyanosis with high arterial tension, or if there be much pulmonary congestion, as in these circumstances the result might be cardac failure or œdema of the lungs, both of which conditions would be fatal.

Longridge adds another beneficial effect to the diuretis action induced by the sodium acetate infusion, and that is that as the alkalinity of the blood is much diminished in eclampsia which he (Longridge) has himself observed, this salt solution tends to restore it to the normal degree.

Venesection.—This is an old treatment. Ramsbotham speaks of it as "our great reliance, the lancet a sheet anchor." Whitridge Williams recommends it when the cessation of the fits do not follow delivery. He removes 500 c.c. of blood, and injects 500 c.c. of saline, in order to dilute the remaining poison. Most authorities only employ venesection on occasion.

Emptying the Uterus.—The question of emptying the uterus or not comes now to be considered. There is considerable divergence of opinion upon whether the pregnancy or labor should be terminated or not at once.

In this connection, speaking of forced labor in convulsions, Denman says: "If the patient should die when no attempts were made to deliver, the omission is always regretted; or, if she should be delivered by art and die, the operation is lamented."

> "Atropos, with remorseless cruelty,
> Spoiled at once both fruit and tree;
> The hapless babe, before his birth,
> Had burial, yet not laid in earth.
>
> —*Milton's Elegy on the Marchioness of Winchester.*

Ramsbotham recognized that "emptying the uterus will usually stop the fits—at any rate, for a time." He recommended hastening delivery where labor had begun or turning before the first stage, but, while advising this, he warns the attendant to proceed with care and not to add another source of irritation by manual efforts. Ramsbotham mentions that the evacuation of the uterus does not always stop the fits, though they become less violent.

Boxall, at Leicester, in 1905, maintained—and the meeting was more or less in general agreement with him—that: "If, under treatment, no improvement is effected within a week or ten days, and in every case where serious complications threaten, means should at once be adopted to terminate the pregnancy. But," he says, "although evacuation of the uterus will cause the albumen to diminish, it is liable to aggravate the danger temporarily; therefore, it is usually a mistake to resort to this measure until some endeavor has at any rate, been made to effect improvement in the condition of the patient, and, even in severe cases where the woman is within the last month or so of term, it is better to allow forty-eight hours' preparation, unless eclampsia threatens, or such symptoms as visual disturbance or paralysis indicate imminent danger to the retina or brain."

Veit and Charpentier advocate the administration of large doses of morphine, but do not interfere obstetrically until the cervix is completely dilated, and then employ forceps or version. Duhrssen, Zweifel, and most American authorities, on the other hand, advocate emptying the uterus at an earlier period, provided it can be done without serious injury to the mother. The question as to the advisability of early operative interference can be decided by determining the proportion of cases in which the convulsions cease after the birth of the child. "Statistics bearing upon this point," writes Whitridge Williams, "have been adduced by Duhrssen, Olshausen, and Zweifel, who noted cessation of the seizures either immediately or soon after delivery in 93.75 per cent., 85 per cent., and 66 per cent. of their cases respectively." Zweifel reports a mortality of 28.5 per cent. under expectant treatment, and 11.5 per cent. under active treatment.

Hartz says that the attacks cease after parturition in between 65 per cent. and 93 per cent. of the cases.

Herman asks with reference to emptying the uterus in eclampsia—Will it stop the fits? and Will it do good? Herman brings forward 1,642 collected cases as recorded by Schauta, Duhrssen, Zweifel, Olshausen, Auvard, himself, and others where pregnancy had been terminated, and in 813 the fits ceased

after delivery, *i.e.*, 49.5 per cent.; and in 829 the fits continued after delivery, *i.e.*, 50.5 per cent. Herman then gives the mortality in cases of eclampsia as follows: Mortality in cases delivered naturally, 20 per cent.; mortality where emptying of the uterus was accelerated, 25 per cent. Herman, however, does advise the induction of premature labor in cases of advanced kidney disease not tending to improvement as a prophyactic of puerperal eclampsia.

Hirst follows the same line of treatment as Herman, and says that increasing experience tells him that the rapid evacuation of the uterus is not the proper treatment. He is better satisfied when the treatment is directed solely to the eclampsia, without regard to the uterine contents, until such a degree of dilatation of the os is secured spontaneously that delivery can be accelerated without violence. He employs premature induction of labor as a prophylactic, as does Herman.

Contrary to these views, Bumm decides in favor of active treatment. He bases his opinion on a comparison of the various modes of treatment, which included 112 cases, and which extended over three periods at the Hallé Clinic. They may be seen as below:

Periods.	Cases.	Treatment.		Deaths.	Mortality per cent.
1882 to 1895	47	*Narcotic*			
		Chloroform	12		
		Morphia	31		
		Chloral and Morphia	4	15	30
1895 to 1900	43	Morphia with free use of diaphoretics	43		
		Venesection and Transfusion.	7	13	30
1901 to 1903	25	Emptying Uterus at once	25	Two hopeless	
				3	12

The uterus was emptied at once after the first or second fit if the patient was in hospital, or, if admitted, within half an hour.

The operations were: Abdominal Cæsarean, vaginal Cæsarean section and delivery by forceps and version.

Sir Haliday Croom, at the Edinburgh Obstetrical Society in 1904, reviewed the subject of Cæsarean section for eclampsia, quoting a series of 54 cases which had been collected by Koettlitz and Streckeisen with a maternal mortality of about 50 per cent. He (Croom) recommends the emptying of the uterus because the fits cease in most cases when the operation is completed. Croom mentions the means by which this can be accomplished, and they are:

1. Duhrssen's cervical incisions.
2. Rapid dilatation of the cervix by Bossi's dilator.
3. Duhrssen's vaginal Cæsarean section.
4. Abdominal Cæsarean section.

Cervical Incisions.—These must be considered dangerous on account of the risk of sepsis.

Bossi's Dilator.—The claims of this instrument have been much written about, both for and against. There is no doubt that under certain conditions this instrument does cause extensive lacerations, which may produce hemorrhage and sepsis.

Vaginal Caesarean Section.—This operation is both easy and quickly performed. It is specially suitable in cases of marked cervical rigidity.

Abdominal Caesarean Section has too high a mortality in eclampsia for it to be recommended.

Can the differences in the above conclusions be explained, backed up as they are by statistics? How is it that Herman's collected list, which includes cases of Duhrssen, Olshausen, and Zweifel, together with those of Schauta, Auvard, and Herman, show little or no benefit with regard to cessation of fits or mortality when actively treated by evacuation of the uterus, whereas Whitridge Williams's list of cases (which comprise those of the first three operators in Herman's list, viz., Duhrssen, Olshausen, and Zweifel) show a marked benefit accruing from emptying the uterus?

Bumm's figures, too, as quoted above, show conclusions quite opposite to those brought out by Herman.

It seems at least a fair comment to make on Herman's figures that, where several modes of treatment are employed by any one man according to the severity of the case (and there is nothing stated to the contrary in the account of his paper at my disposal), it is in the specially bad cases in which the uterus is emptied, and therefore a high mortality is likely to be ascribed to the operation and the latter to be condemned.—*Smallwood Savage, in Birmingham Medical Review.*

Nitrate of silver may be attached in full strength to the end of a probe, as for application in the middle ear, by heating the tip of the instrument and pressing it into the stick of caustic; a little of the latter will melt and form a bead on the probe when it cools.—*American Journal of Surgery.*

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BRITISH COLUMBIA—S. J. Tunstall, Vancouver; O. M. Jones, Victoria; Dr. King, Cranbrooke.

Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

Vaccination.—At the recent meeting of the Ontario Medical Association, a warm discussion ensued on the reading of one of the papers, over the subject of compulsory vaccination. One gentleman assayed to defend his action in voting (as a member of the school board) against compulsory vaccination. While it may be said that the majority of the members present did not see eye to eye with him in his explanation, to our own way of thinking there was some excuse for his attitude. He did not see that the school board should do police duty for the provincial government, and we think his attitude in this regard well taken.

If vaccination be the all-important matter most of us think it is, then it should be placed under the control of the government. And the people who should insist on this are the members of the medical profession. It seems to us the intelligent minority, in any special walk of life, must ever legislate for the safeguarding of the (comparatively) unintelligent majority. Thus, in the question of any highly technical matter, where the welfare of a mass of people is concerned, the opinion of one or more experts, competent to judge of the matter in question, must ever be the guiding opinion. In the settling of any intricate legal

problem, we do not seek the opinion of the masses, as voiced by the ballot, but rather the cool, clear reasoning of the legal expert—the judge. The details of working out any great engineering problem are not left to the hazy notions of the "great unwashed" (so to speak), but rather to the expert engineer. So, too, in so vital a matter as public health—and in the case more particularly of universal vaccination—the ruling of those competent to give judgment in such a matter, must be the guiding principle.

Unfortunately, in the ranks of medical men, it cannot be said that all are of one united opinion on this subject. There are, we are told, actually practising in this city, certain medical practitioners (albeit not of the regular school) who profess to vaccinate their patients by administering the supposed vaccine in a dainty pill, which is taken by the mouth! A procedure which some people would regard as unsatisfactory as twenty drops of beer administered by a hypodermic syringe. However, it may be said that the overwhelming majority of intelligent physicians are long since agreed on the great benefit to humanity of vaccination.

If, then, such be the case, does it necessarily follow that such belief in universal vaccination carries with it a conscientious belief in compulsory vaccination? Not necessarily so. The existing conditions may not be such as to warrant the carrying out of such a seemingly high-handed procedure.

But granting that, properly carried out, the measure is an eminently desirable one. What is the proper course to pursue? As already indicated, it is the bounden duty of medical men to unite in insisting that such an important measure shall be placed under the control of either the federal, or at least, the provincial authorities, preferably the former, and quite outside the realm of mere party politics.

If such were the case, what might the duties of the government be in such a case?

1. To see that an abundant supply of *guaranteed pure* vaccine would be available at all times for any number of people. This would probably necessitate the establishment of a number of vaccine farms, under strict government supervision, from which vaccine could be procured at about cost price, or even free of charge.

2. To appoint a sufficient number of properly qualified physicians throughout the various townships and municipalities (even as coroners are appointed), whose duty it should be to see that all within their respective districts were properly vac-

cinated from time to time, and for which the physicians should get a proper fee from the government.

3. The compulsory vaccination of all children before the age of, say, one or two years.

4. The compulsory vaccination of all immigrants.

5. That all physicians acting in the capacity of health officer, should see that all are vacinated in a proper manner, and that the vaccination wound is dressed and redressed sufficiently to prevent, as far as possible, any mixed infection getting into the wound.

6. That the practice of vaccinating one individual from another should be absolutely interdicted, and where discovered, made a criminal offence, thus preventing, as far as possible, the transmission of such diseases as syphilis and tuberculosis.

It may be urged that such a universal measure is altogether too Utopian in character, too wieldy for proper execution, and too expensive for the pockets of the people. To the first and second objections it may be urged that no measure which makes for the real welfare of the masses, should be beyond the reach of possibility; while as for the matter of expense, when we come to calculate on the one hand the cost of maintaining isolation hospitals and periodic quarantines, to say nothing of the incalculable cost to the nation in the number of human lives annually sacrificed, as against, on the other hand, the cost of maintaining such a system of national prevention as that roughly outlined above, it seems to us there can be no shadow of doubt as to the proper course to pursue.

There are many street noises and noises especially at night in large cities which should be suppressed. Uncalled-for noises in and around the neighborhood of hospitals should be sharply dealt with, so that invalids and nervous individuals be freed from their constant irritation. Now that the "zone of quiet" is suggested for the Toronto General Hospital, one wonders why hospitals should locate on street car streets and on corners where these noises are sure to prevail. When the Toronto General Hospital becomes established on College Street it will probably be in a noisier spot than at present. Most people sleep from 10 p.m. to 6 or 7 a.m. That is a time when all unnecessary noises should cease. Why should bells ring out every hour of the night? Who wants to know what time it is when he is asleep? Of all the most unnecessary and vexatious noises, the regular ringing of bells or striking of town clocks every hour of the night is the most ridiculous. Certainly all noises in the vicinity of hospitals should be

governed, so that the inmates receive their quiet and rest accordingly.

The "bitters" habit is the new thing in drug addictions. It is said to be developing amongst athletes, golfers, etc. It is employed by those made thirsty by drastic exercise, we are told, though this would scarcely apply to the golfer, who needs a stimulating drink more for his staying powers than for his strenuosity. Soda water and quinine seems to have the first call. Vermuth is said to be the favorite at the golf clubs. Text-books state oil of wormwood to be a convulsive poison. When columba, gentian and chiretta are added to the materia medica of the athletes' bar, they will have quite a variety of "bitters" to choose from. As with alcohol, so with "bitters"; they are to be used and not abused. *Verb. sap.*

Montreal's fearful infant mortality is astounding. In 1906 in June, July and August there were 1,500 deaths in children under five years of age. This year the mortality has reached as high as 180 deaths in one week, and there is no let up. At that rate the mortality of last year will be eclipsed. Were these deaths to occur from diphtheria, scarlet fever, or some of the minor infectious diseases, there would be a persistent and long-continued howl. But because they mostly occur in June, July, August, or July, August and September, preventive treatment is not constantly on the job. Education in the care and treatment of infants should be continued all the year round, and the city should see to it that its health department should be specially provided with funds to carry on a campaign of education continuously and all the time. Until this plan be adopted ignorant mothers will lose their babies, and Montreal will be known as the worst place on this continent in summer time for poor children.

Canadian Medical Association.—When one calls to mind the fact that there were one thousand physicians in Toronto last year at the meeting of the British Medical Association, the wonder is will there be half that many in Montreal in September. Why not? Transportation rates have been arranged satisfactorily; the time limits are the usual dates allowed conventions; the *standard certificate plan will prevail.* If three hundred are present holding standard convention certificates, all will be returned home free. This applies only to delegates, their wives or daughters. There is to be a good programme. Dr. Davy Rolleston, London, Eng-

land, will deliver the address in medicine, Dr. J. George Adami the address in pathology, Dr. Ingersoll Olmsted, Hamilton, the address in surgery, Dr. McPhedran the presidential address. Then the meeting is to be an important one on account of the reorganization scheme now before it. As to entertainment, one may well leave Montreal to look out for that. Can you afford to stay away from participation in your own national medical meeting?

The anti-mosquito movement is world-wide in its interest as it is cosmopolitan in its import. In a note in these pages in April a concise history of malaria was given. What is being done the world over in the extermination of the mosquito seems a natural sequence to that note. A slight typographical error may be mentioned in that connection, as the discovery of peruvian bark was made to read 1840 instead of 1640. The mosquito problem has been of late years vigorously worked at in different English tropical colonies. The drainage of marshes has in some sections been undertaken on a large scale. In Klang and Port Swettenham in Silanger, Confederated Malay States, the abolition of the mosquito and malaria has been accomplished at the comparatively small expenditure of about $2,000. At Ismailia, the Suez Canal Company has done admirable work. Greece has an Anti-Malaria League which will grapple with the disease very common in that country. Before the work of mosquito prevention was inaugurated in Honolulu it was next to impossible to secure a good night's rest on the Island. Now Hawaii is reasonably free from the pest. The United States has its American Mosquito Extermination Society. Considerable work has been done in the marshes on the south side of Long Island, at Jamaica Bay, at the south end of Staten Island, and in the Newark Meadows near Orange, New Jersey. The famous New Jersey mosquito will soon be a thing of the past. Nor is the cost of the work of drainage particularly expensive, the average being only about $2.00 per acre. In the Adirondacks but little work has as yet been done, although the mosquito abounds there in vast numbers. According to the last monthly report of the Sanitary Department at Panama, where a prodigious engineering enterprise is being prosecuted, malarial fever was one of the two diseases giving the highest mortality, fifteen deaths from the disease having been recorded. It would seem, therefore, that Panama would be a fitting place for the American Mosquito Extermination Society to begin an active campaign. So far as

is known, Canada has taken no active step in the extermination of the mosquito.

Chloroform for Osler is no joke. Since Dr. Osler's famous address, made nearly two years ago, that distinguished *savant*, it is understood, has been more than once forced to travel incog. "Man's best work is done before 40," he said, which he meant was to be considered in a preparatory sense. But the newspapers got hold of a few fragments, and with the judgment and knowledge of which all newspaper reporters are seized where medical matters are concerned, that great address was "newspaperized." The real words of Dr. Osler on that occasion were: "The teacher's life should have three periods—study until 25, investigation until 40, profession until 60, at which time I would have him retire on a double allowance. Whether Anthony Trollope's suggestion of a college and chloroform should be carried out or not, I have become a little dubious, as my own time is getting so short."

News Items.

SOURIS, MAN., is to have a $12,000 hospital.

DR. WM. BURT, Paris, Ont., is in England.

BELLEVILLE, ONT., will build a new Isolation Hospital, at a cost of $10,000.

A NEW modern hospital to cost $140,000, is to be erected in Calgary, Alta.

DRS. O. M. JONES, Frank Hall and R. H. Carter, Victoria, B.C., are in England.

DR. ATHERTON, Frederickton, N.B., has been attending the B. M. A. meeting at Exeter.

DR. SAMUEL JOHNSTON, Carlton Street, Toronto, now confines his work to anesthetics.

DR. JOHN MALLOCH has returned to Toronto, after two years' graduate work in England.

DR. H. B. ANDERSON, Toronto, has returned from several months' graduate work in Germany.

ON the 1st of August there were twenty-seven cases of smallpox in the Toronto Smallpox Hospital.

DR. A. PRIMROSE, we are glad to hear, is recovering nicely in Muskoka, from the effects of his recent operation.

THE deaths amongst children under five years of age in Montreal, have reached as high as 180 per week the present summer.

THE new medical building for McGill is to be situated opposite the Royal Victoria Hospital, and is to cost half a million dollars.

Dr. D. J. Gibb Wishart, Toronto, is convalescing rapidly on his island in the Georgian Bay, after a second attack of erysipelas.

Dr. R. B. Nevitt, Toronto, is suffering from glaucoma, and his many friends in the profession will hope for a speedy recovery.

Dr. H. P. H. Galloway, formerly of Toronto, but now of Winnipeg, has been appointed orthopœdic surgeon to the Winnipeg General Hospital.

Dr. Fred Montizambert, Director General of Public Health, has served under every Dominion government, and has seen forty-one years of service.

The annual meeting of the Canadian Medical Protective Association will be held in Montreal some time during the meeting of the Canadian Medical Association, from the 11th to 14th September.

The new King Edward Sanatorium for pay patients in advanced and far advanced stages of tuberculosis, will be opened the latter part of August. It is situated on the bank of the Humber river, near Toronto.

Dr. Wm. Bayard, St. John, N.B., celebrated the 70th anniversary of his entrance on the practice of medicine on August 1st. Amongst other messages of congratulation was one from his alma mater, the University of Edinburgh.

Lieutenant-Colonel Carleton Jones, M.D., Director-General of Army Medical Service, Ottawa, is organizing a meeting of military surgeons, to take place in Montreal at the time of the Canadian Medical Association meeting.

Dr. Jas. L. Bray, of Chatham, Ont., has been appointed as Dr. R. A. Pyne's successor as Registrar of the College of Physicians and Surgeons. Dr. Bray is not by any means a stranger to the profession, being not only well known through Western Ontario, where he has practiced most successfully for many years, but has served several terms as member of the council, and is therefore well acquainted with the general busi-

ness of that body. We welcome Dr. Bray to Toronto, and feel that he will be not only an acquisition to the profession in our city, but carry out his new duties as Registrar of the College in an eminently satisfactory manner. Dr. Bray graduated at Queen's in 1863, and received not long ago his LL.D. in recognition of his long services to the profession.

Dr. F. H. Scott, brother of Dr. Wallace Scott, Toronto, and son of the principal of the Toronto Normal School, recently secured the Gunning prize for research work, and has been appointed to the staff of University College, London, England, as a lecturer of physiology.

During the month of June in Ontario, there were 2,078 deaths, 100 more than in June, 1906. There were fifty-five cases of smallpox, no deaths; measles, 376 cases, 35 deaths; diptheria, 125 cases, 20 deaths; scarlet fever, 195 cases, ten deaths; consumption, 143 deaths.

At a meeting of the Welland County Medical Association, held May 16, 1907, it was unanimously decided that, in view of the fact that the expenses of carrying on practice have been largely increased during the last few years, it was necessary to raise the fees sufficiently to compensate for increased expenses. It was the opinion of those present that this was simply in keeping with the general advance in wages that prevails at present in almost every walk of life. The old tariff of fees was adopted about forty years ago, when the cost of living and carrying on practice was not more than half what it is at present. The physicians of Welland County are simply following the example of other counties and cities, who have found it necessary to take similar action. Following is a list of some of the principal items of the schedule: Visit in town or village, 7 a.m. to 7 p.m.—$1.50. Visit in town or village, 7 p.m. to 7 a.m.—$2.00. Mileage in country—$1.50 for first mile, 50c. each succeeding. Night visits in country—$2.00 for first mile, 75c. each succeeding. Office consultation and prescription—50c. to $1.00. Office consultation and medicine—75c. to $2.00. Consultation fee, mileage extra,—$5.00. Advice by telephone—50c. Confinement, natural, mileage extra, $8.00. Confinements, complicated, mileage extra, $12.00. Surgical treatment at office, $1.00 to $5.00. Opening simple abscess—$1.00 to $5.00. Administering anesthetics—$5.00 to $25.00 Suture of wounds—$1.00 to $10.00. Fees for surgical operations are practically the same as before. The new schedule of fees came into effect on June 1st, 1907.—*Welland Telegraph.*

Publishers' Department

Gastro-Intestinal Ailments of Young Children.—As the hot weather approaches the usual number of cases of gastro-intestinal ailments will confront us, and if we be not alert the same mortality of old will occur among our little patients of one and two years. The keynote to success in the management of these cases is to see that correct feeding is enforced and to keep the alimentary canal as clean and nearly aseptic as is possible. If this be done much suffering can be obviated and many little lives saved.

Every medical man these days is capable of giving correct advice on infant feeding, the care of bottles, accessories, etc., if he will only take the time and trouble to make the mother understand how important it all is. The doctor's suggestions on this matter are too often regarded as simply platitudes and not thought of seriously until the child is in the throes of a severe illness. The following clinical reports are illustrations of my usual method of handling the more common but serious gastro-intestinal diseases we meet during the heated season.

Ethel G., aged ten months, suffering from cholera infantum; bottle fed. Was passing watery stools every few minutes. Temperature had been considerably elevated, but was now slightly abnormal. Mouth and tongue parched. Considerable emaciation and scaphoid abdomen. Circulation weak and respirations labored. In fact, an extreme prostrate condition. Treatment: I put four ounces of Glyco-Thymoline with eight ounces of water and gave it as a high enema, causing it to be retained as long as possible. This was repeated every hour or so until the bowels were thoroughly cleansed and the stools diminishing in number. Gave one-tenth grain of calomel every two hours until the discharges showed the characteristic greenish color. Also gave the following:

℞ Elixir Lactopeptine.....℥ ij
Glyco-Thymoline.....℥ ij
Oil Peppermint..... ....gtt. j
M. Sig.—20 drops every hour.

After eight hours the child was able to take nourishment and retain it. This consisted of cold, pasteurized milk diluted with an equal portion of lime water. Child was given all the cold water and lemonade she wanted. She made a good recovery.

Jennie M., aged fourteen months. Suffered from gastro-

enteritis with much fermentation. Bowels swollen and tympanitic. Fever of a remittent type due to autotoxemia. Child delicate and poorly nourished; still nursing the mother's breast. Mother herself in poor health and in no condition to nourish her child. Treatment: Put the little one on cow's milk diluted with lime water. Three times a week I gave a high enema of a warm saline solution and Glyco-Thymoline, equal parts. Also gave the above prescription, a teaspoonful every four hours. Child steadily improved under this treatment, and in six weeks was in a good state of nutrition and health.

A point that I wish to emphasize in these notes is that Glyco-Thymoline is a most excellent antacid and antiseptic and deserves special consideration in the stomach and bowel disorders of young children. It gives prompt and gratifying results.—H. B. Brown, M.D., Waukegan, Ill., in the *Medical Summary*, July, 1907.

Toronto's High Water Mark.—Last year there were upwards of 800,000 visitors to the Canadian National Exhibition, Toronto. This year, with the special exertions that are being made, the extra cheap railway and steamboat fares, and the $350,000 worth of new buildings, something that no other established annual exhibition has ever boasted, it is fully expected high-water mark, in the shape of a round million, will be reached.

Starch Indigestion.—Digestive disturbances are due more frequently to failure of digesting carbohydrates than of other food products. Raw starch is particularly indigestible, the heat of cooking being necessary to break up the granules and to perform the first three of the five steps of starch digestion, after which the normal digestive juices will complete the work. The method of cooking is very important, as most cases of amylaceous dyspepsia are due to eating improperly cooked starches. Here is best seen the beneficial results of the extended steam-cooking, flaking and baking of cereal foods under the Egg-O-See Process. This process has been applied to both wheat ("Egg-O-See") and corn ("E. C. Corn Flakes") both of which products are welcome additions to the sick room dietary. Toast is considered more digestible than bread, as it is baked en masse and then dry cooked in slices. Under the Egg-O-See Process each flake of

wheat or corn, thin as fine paper, is toasted to a crisp and delicate brown, with the result that "Egg-O-See" and "E. C. Corn Flakes" are much more easily digested than toast. The Egg-O-See Cereal Co., Chicago, will send free on application full size packages of these foods to physicians.

The Storming of Badajos.—There is always something suggestively educational connected with the brilliant spectacle given annually at the Canadian National Exhibition, Toronto. Last year we were reminded of Sir Walter Scott's most picturesque work, "Ivanhoe." This year we are to be introduced to perhaps the most striking incident of the Peninsular War—"The Storming of Badajos," in connection with which visitors are to be treated to an exceptionally fine military, musical and pyrotechnical display.

Transmissibility and Curability of Cancer.—Dr. William Seaman Bainbridge, of New York City, after reviewing the evidence concerning the theories of heredity, congenital transmission, and contagiousness or infectiousness as causal factors in the production of cancer, concludes that the hereditary and congenital acquirement of cancer are subjects which require much more study before any definite conclusions can be formulated concerning them; that the contagiousness or infectiousness of cancer is far from proved; that the evidence to support this theory is so incomplete and inconclusive that the public need not concern itself with it; that the danger of the accidental acquirement of cancer is far less than from typhoid fever, syphilis or tuberculosis; that in the care of cancer cases there is much more danger to the attendant of septic infection, of blood poisoning from pus organisms, than from any possible acquirement of cancer; that the communication of cancer from man to man is so rare, if it really occurs at all, that it can practically be disregarded; that in cancer, as in all other disease, attention to diet, exercise, and proper hygienic surroundings, is of the utmost importance; that cancer is local in its beginning; that, when accessible, it may, in its incipiency, be removed by radical operation so perfectly that the chances are overwhelmingly in favor of its non-recurrence; that once it has advanced beyond the stage of cure, in many cases, suffering may be palliated and life prolonged by surgical means;

that while other methods of treatment may, in some cases, offer hope for the cancer victim, the evidence is conclusive that surgery, for operable cases, affords the surest means of cure.—*The Boston Medical and Surgical Journal,* June 27th.

Agriculturally and Industrially.—Both agriculturally and industrially the Canadian National Exhibition, to be held at Toronto, Aug. 26 to September 9, will be stronger than ever. Increased premiums, increased specials, increased accommodation, cannot fail to make it so. In every section the prize list shows noteworthy additions, while $350,000 worth of new buildings will afford both exhibitors and visitors 108,000 square feet, or about two acres, of improved accommodation.

Codeine Safety Again Demonstrated.—Dr. E. L. McKee, of Cincinnati, Ohio, speaking of Codeine, in the *Denver Medical Times,* says: "This drug, according to Butler, is one-fourth as toxic and effective as morphine. It is less depressing and more stimulant, does not constipate, cause headache or nausea, and rarely leads to the formation of a habit. Codeine seems to exert a special, selective sedative power over the pneumogastric nerve, hence its value in irritative, laryngeal, pharyngeal and phthisical coughs with scanty secretion. Like morphine, it has proved of value in checking the progress of saccharine diabetes, and it has been used for long periods without the formation of the drug habit, inasmuch as when glycosuria was brought to a termination by dietary and other measures, the cessation of the use of codeine was not followed by any special distress. The effects of codeine on the alimentary canal are remarkable, in that it assuages pain as well or better than morphine, and nevertheless does not check the secretions or peristalsis notably, unless the latter is excessive, as in dysentery. The statement that codeine is simply a "little morphine," only differing from the latter in the size of the dose, is an erroneous view, as can be ascertained by any one who closely observes the action of the two drugs." Codeine in connection with antikamnia has stood the test of exhaustive experimental work, both in the laboratory and in actual practice, and they are now accepted as the safest and surest of this class of remedies. Therefore, "antikamnia and codeine tablets"

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Dr. Hamill, who conducts the Canadian Medical Exchange, for the purchase and sale of medical practices and properties, wishes to state through our columns that all prospective buyers are bound legally and morally against piracy, publicity, or offering opposition before any offer on his register is submitted to them. In fact, prospective vendors through his office can effect a sale with a minimum of publicity and maximum of speed. A partial list of his offers will be found among our advertising columns.

I take pleasure in stating that I have used your Resinol Ointment in several cases of eczema, and have obtained the most gratifying results in every one of them.—P. del Valle, M.D., San Juan, Porto Rico.

Thomas W. Forshee, M.D., of Madison, Ind., writing, says: "It is a pleasure to me to add my testimony to the hundreds of other physicians in attesting the merits of Sanmetto. I have used it extensively in my practice since its inception, and without any failures where it was typical. For vesical irritation in both male and female I find it perfect. Not that every case is cured by it, but when I make failures I find them due to some mechanical displacement, or to tuberculous conditions. For prostatitis I have never found any remedy that approximated it. I have used it myself with remarkable success. It is not necessary for me to say that I shall continue its use where indicated."

Sanmetto in Prostatitis, Chronic Cystitis and Enuresis.—I have had a very large experience with Sanmetto in prostatitis, so common in old men, also in chronic cystitis in both sexes, and find it prompt, efficient and reliable in these and all other cases of irritability of the genito-urinary organs. Have also used it wth great satisfaction in enuresis; in fact, I think it will cure any case where no mechanical cause exists.—*Edw. J. Libbert, M.D., Aurora, Ind.*

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Dominion Medical Monthly

And Ontario Medical Journal

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Original Articles.

MEDICAL THOUGHTS, FADS, FACTS AND FANCIES.

By James S. Sprague, M.D., Stirling, Ont.
Author of "Medical Ethics," etc.

It is really needless to state that we, of the medical profession, are the most poorly and insecurely bound together, when the unity of those connected with the bar, and even the pulpit, and most especially trades unions is brought into evidence for confirmation and illustration of the assertion.

That we—even all of us—have often felt the urgent necessity of a closer union, in which every righteous interest should be nursed, is a solemn truth, which all of us wish—only wish to encourage, and the very few to work for it. Yet, as a rule, the most zealous of those interested, while publicly announcing their views, are content to see another assume the task of clearing the way for this desirable unity, and are unwilling to encourage or assist zealous workers. Too many there exist among us who say: "Go ahead; that's all right; that is just what we want," yet, do not want to assist us, who of the minorities are zealous in good works, and are pathfinders in medical interests. Too often those among us—our fellow practitioners, yet no fellow-workers—will sneeringly taunt us when a proposition, however well contemplated and well presented fails through want of fraternal support, with the cold and conciliatory remark, "I told you so." Yes, we of the medical

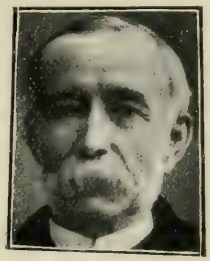
profession belong to the loosest of all corporations, and I, in making this statement, am repeating views, by me advanced in this and many other medical journals; and most pleasurable to me was it, that I noticed the remarks of Dr. McCullough, of Alliston, in his address before the late session of the Ontario Medical Association, which confirms my similar views, and those held by all of us, who have the interest of medicine constantly in our keeping, and are not leaving to others the task of making reforms, while they sit on the fence, and grow old in criticising our movements, and while living in this fool's paradise, expect to gain our respect and reach heaven.

One pleasurable and encouraging fact is this: *Patet omnibus veritas, nondum est occupata,* pronounced by Seneca, and illustrates that truth is open to all, it is not occupied; and Bacon offers further encouragement of pleasure in our delightful and never ending researches, by telling us there is no pleasure comparable to the standing upon the vantage ground of truth. We must admit that "conservatism never made an invention, wrote a book, painted a picture, nor breathed a prayer that rose above the roof."

That we, who have had the bad luck to study physic, should have limited boundaries established wherein we could, without fear of molestation, be allowed to practice our profession, which, in time, study, self-sacrifice, anxiety, brains and shekels demands more than any other profession or calling, is most lamentable when we hear, and very frequently read, that "Canada is for Canadians." To make the statement that no one State of the United States offers one-half the obstacles to the acquiring of its medical license, than are demanded by our several poorly settled and new Provinces for a similar privilege, is in no sense pleasing; but the truth remains, and although most grievous is it for our young men to bear, yet no successful attempts, so far have been encouraged to remove these objectionable restrictions, and our Dominion, in consequence of our indifference in the matter of the establishment of our Board of Medical Examiners, is, yearly, losing many of her best sons—and from a careful study, during several years, I can safely state, that of our graduates, nearly one-fourth, during their graduating year, seek homes in the United States.

These most lamentable and unpatriotic barriers, interfering not only with our liberties but with our rights as citizens, or rather subjects of the Crown, in the matter of the practice of

our profession and also in the participation of all the promises and illimitable possibilities which our great prairie Provinces present us—are still before us and have to be faced and over come. Canada is certainly not for Canadians—it really is the dumping ground for the Japanese, who, each week, are landing on our shores more than one thousand souls. During the early part of, in fact all through the seventies—and even through the early years of the eighties—no State of the American Union had any medical license laws, and as a result hundreds of our duly qualified men and holders of Canadian degrees, found homes and peaceful enjoyment in their practice there, even under a foreign flag. These self-expatriated young men were the



James S. Sprague.

And if at times beside the evening fire
You see my face among the other faces,
Let it not be regarded as a ghost
That haunts your house, but as a guest who loves you.
—*Longfellow.*

stated, were regularly graduated in medicine, and were well received, and recognized for their worth. Yes, easily separated from the quack, who had equal rights for a season.

These lines are written with a thorough knowledge of medical life and interests, confirmed by long residence in a trans-Mississippi State, in which, and in neighbor States and territories many fellow-graduates were in active practice. When I reflect upon the average worth and wealth to every community, of an average citizen, and think how much our Province has lost and will lose, in fact is losing—and that our prairie Provinces are losing good citizens—young doctors—by their unjust medical legislation in regard to licenses, I grieve to think that there are none to arise to champion the rights of our young men

for their inheritance in homes within our own borders, and for a Dominion licensing system, even while I esteem, and am upholding the noble work of our College of Physicians and Surgeons, for which, during the last four years, I acted as one of the examiners, and although with humility I may here state that I justly considered myself not only highly honored but privileged to understand more fully the most perfect system of medical examinations and just rulings most happily and satisfactorily arranged by the members of our Council. That a Dominion licensing system should exist, whose rulings were or would be those now held by our College, however, is not only my wish, but the wish of all who are true Canadians, and love medicine for other than purely selfish interests. Who is to come forward to advocate the necessity of a Dominion license and the establishment of the Royal College of Physicians and Surgeons of Canada?

All of us who are quietly settled in practice; those, too, who are not fully established; those, the twelve hundred young men whom for the College of Physicians and Surgeons I have examined, and those of the first year in medicine; all, yes, all, will hail the day when we can say: "Truly, Canada is for Canadians—for it includes us of the medical profession."

However, to many such will be a pleasing dream for many years, when we reflect that we are the loosest of all corporations —are "easy marks," and are living, each in a "fool's paradise" of jealousy and marked indifference, while even dentists, even pharmacists, not forgetting the nurses, Osteopaths, kite-flyers of every color, tradesmen and unions, are daily offering us lessons in organization work.

A certain vein of censure, even of criticism, may have been introduced in this paper; however, I solace myself with the belief that they never do harm to or hurt anyone—even if I have advocated strenuously the introduction of interests for our good, and even if my statements are false, no one is hurt, unless he lacks character, and will not call into exercise the most heaven-born of all virtues, namely, charity, which our dear Osler, the master mind of this century, urges us to employ in all our fraternal relations.

In order to relieve the mind of the reader, the following most pleasing poem is added, thoroughly believing age and wisdom, and holiness, have peremptory claims, and will be listened to (in the words of the *Abbot*, by Sir Walter Scott):

This poem, by T. A. Daly, Philadelphia, is written in the

Italian dialect, and "Father McCann" and the "Gran' Doctor" are the heroes:

"Padre Domineec McCann,
He ees great beeg Irishman,
He ees growla w'en he speak
Like he gona go fer you,
Jus' for busta you in two,
My, he talk so rough, so queeck,
You weel wisha you could be
Som'where else w'en you see
Padre Domineec.

"Padre Domineec McCann
Stop at dees peanutta stan',
W'en my leetla boy ees seeck;
Talk so rough he mak' me cry,
Say ees besta boy should die
So he go to heaven queeck.
He ees speak so cold to me,
Nevva more I wanta see
Padre Domineec.

"Den Gran' Doctor com', ees queer,
We'n I ask who send heem here,
He jus' smile, an' weel no speak,
Only justa for to say:
'You no gotta cent to pay,
I gon' feex dees boy dat's seek.'
Oh! beeg hearta man an' true,
I'm gatin' on to you,
Padre Domineec."

In advocacy of mutual interests, and for your best consideration, is this paper prepared, brother, it is not acroamatical, and is done to pass most pleasurably a leisure hour, and with the hope that others, in our ranks, may become interested or benefited, or agree with us in regard to the great, even urgent, invocation for unity as is named herein, fully believing:

"That united, we stand;
Divided, we fall."

and

"In essentials, unity,
Non essentials, liberty,
In all essentials, charity."

And with Emerson, believing, too, that, "One look at the face of heaven, and earth lays all petulance at rest, and soothes us to wiser convictions."

Brother, as I am collecting material for a proposed publication, whose title shall bear relationship to medical anthology and allied subjects, it will be much pleasure and satisfaction to me if you furnish me copies of such choice subjects in prose or verse, consisting of very brief extracts, articles or papers, aphorisms of the masters, etc., and in so doing, you will receive my best thanks.

"For this was the manner in former times in Israel. . . . for to confirm all things, a man plucked off his shoe and gave it to his neighbor."

A BRIEF RESUME OF THE DEVELOPMENT OF CLINICAL PSYCHIATRY.

By John G. Fitzgerald, M.B., Toronto.

That the study of the various manifestations of mental alienation dates back to the earliest times need not be emphasized, and without recalling any names, antedating his, it need only be mentioned that Galen described one type of disease which in its essential features was not unlike the picture described by Georget, an eminent French alienist of the early nineteenth century. In this picture were certain features which were incorporated in one of the forms of the now well-known condition—Dementia Praecox.

When one thus considers that Psychiatry had its beginning at such a remote date, it seems hardly credible that so little progress was made in so many decades. To trace the historical development through all the ages would require considerable time, and it is possible only to sketch in the briefest fashion the more important of the earlier events.

It is highly probable that the most important etiologic factor in the retardation of knowledge in regard to the nature of mental diseases was the view held by the Church, which was that all persons exhibiting symptoms of anomalous mental activity were possessed of an evil spirit (this view was also held by eminent alienists of the eighteenth century), and that the proper treatment was that which the priests would administer. A second factor, which partially explains the first, was this: the activities

of the diseased mind, not being understood, were looked upon as supernatural and were consequently avoided, and tales of the bizarre conduct of one so afflicted were told to frighten the children, just as stories of ghosts, goblins, etc., are implements of offence in the hands of those in charge of the youthful, in many parts, in this enlightened twentieth century.

Despite the handicaps thus imposed, many excellent observations were recorded, even at the time when witches were being sent to the stake, and one may be pardoned for quoting the author of the "Religio Medici" in regard to his views on the subject of witches. He says: "For my part, I have ever believed, and do now know that there are witches; and they that doubt of these, do not onely deny *them,* but spirits, and are obliquely and upon consequences a sort not of Infidels but Atheists."

As early as 1536, Felix Plätter, a German alienist, described four conditions, to wit: mental weakness corresponding to the state later spoken of as Dementia; mental alienation corresponding to Paranoia or Mania; mental abolition corresponding to mental confusion; and mental anxiety corresponding to Melancholia. So here we have a descriptive symptomatic classification almost four hundred years old. Various other investigators, later in the eighteenth century, and early in the nineteenth century, described symptom-pictures, some of which hold good even to-day; in the great line of names associated with this early time one must linger for a moment to mention Chiarurgi, Pinel, Esquirol and Georget, in France; Tuke and Cullen, in England; and Benjamin Rush, in America, the last-named finding time in the midst of multifarious duties as head of the Institute of Medicine in the University of Pennsylvania, to devote many hours to the consideration of the symptoms shown by the inmates of the Philadelphia Asylums, and the fascinating descriptions contained in the writings of the man who has been described as the father of American Psychiatry, make most interesting reading for the present-day student of the subject.

Passing on to still more modern times, Griesinger, Kahlbaum, Hecker and Zeller, in Germany; Baillarger and Bayle, in France; Tuke, Prichard, Bicknell and Connoley, in England, are all landmarks on the way. In 1840 Zeller described all forms of insanity as belonging to one type, each case passing through four phases: that of depression, excitement, irrelevancy and dementia. What a different conception from that of one modern German psychiater who describes eight or nine forms of Paranoia alone.

Following in chronological order, the names of Morel, Mey-

nert (who divided all forms of mental diseases into Mania, Melancholia, Amentia and Paranoia), Chaslin, Christian and Regis, in France; Maudsley and Clouston, in Great Britain; and finally Ziehen, Wernicke and Kraepelin, in Germany; and our own Canadian representative, the late Dr. Workman, who did so much to further the truest interests of psychiatry.

For many decades the students of mental disease concerned themselves chiefly with the matter of classification; all cases admitted had to be diagnosed and classified. This was found to be a herculean task, and almost more than could be accomplished; but a way was found which seemed to solve the problem, and that was the adoption of the symptomatic method. In this method the symptom-picture presented by the patient at the onset of the psychosis, dominated and was the clue to the diagnosis, and of course to the prognosis and treatment.

Now it may not at once be apparent what the actual significance of this state of affairs naturally led to. In the first place, the psychic sphere most involved, and as a consequence exhibiting the greatest degree of parafunctioning, almost invariably was the only one observed or studied, and gave the name to the condition. For example: a patient showed excitement—it was a case of mania; depression—a case of melancholia; conspicuous reduction—dementia, etc., etc. The evident lack of breadth and comprehensiveness of this method cannot but be apparent to the most casual observer. When one feature so colored the picture in the mind of the alienist that all other manifestations were entirely overlooked or neglected, it necessarily implied that accurate, painstaking, laborious psychologic analyses were not the order of the day.

So that, as long as classification was the end object of the alienist, progress was bound to be slow. Many extremely interesting observations were made, but they were isolated, could not be correlated, and were practically valueless. Because the clinical picture as drawn by the alienist was so often one-sided, many of the most essential points were overlooked. In order to illustrate this we have only to again refer to a case of acute mania. Here the features which predominated were: the emotional exaltation and the greatly increased psychomotor discharge seen in the patient's busy activity, marked restlessness, etc. The lesion in attention, the nature of the psychic processes of association, ideation, etc., were not critically analyzed.

So to briefly sum up the disadvantageous features in the symptomatic method, there were: first, that it did not consider

the psychoses in their entirety, including a review of all phases of the condition; secondly, that it was concerned with the matter of naming conditions rather than thoroughly studying them; thirdly, that the symptomatic picture did not give one a sufficient grasp of the situation to be in a position to express a fairly accurate prognosis; and lastly, that the treatment was often not based on a thorough understanding of the cases, and could not be designated rational therapeutics.

That the field of neuro-histology and neuro-pathology was naturally looked upon as ground which would yield the richest harvest is not to be wondered at; and very early many most eminent workers in laboratories the world over were devoting themselves to a consideration of the conditions found *post-mortem* in cases of mental disease. There was also a large band of investigators who devoted themselves to a study of the normal cortex cerebri, and the underlying white zone. Of the men whose activity and scientific zeal have caused their names to be of true historical interest, in this realm of medicine, must be mentioned Leewenhook, who in 1684 had observed by means of the rude lens designed by him, the nerve fibres; Vic. d'Azyr, whose discovery of the intra-cortical zone in the occipital region was the first step in the elaboration of the cortical anatomy; Ehrenberg, who in 1833 described nerve cells and fibres. Valentine, however, in 1838, really laid the first foundations in the study of the nerve cell, although the year before Purkinje (1837) had described the processes of the nerve cells, and in the same year Remak described the cells in the corna of the cord, and one year later gave the first description of the fibre elements;—the axis-cylinder of myelinated fibres which were spoken of as the "Primitiv-band." The observation of Virchow that certain elements in the cortex were essential nerve elements, and others non-essential, supporting structures, was made before staining methods were introduced. It must be remembered that all this extremely painstaking work was done by isolating the elements in fresh material. Of other early workers, Schwann, who in 1838 gave to the world the cell theory named after him; Kalliker (who elaborated the theory of Schwann), and Gerlach were also great names in the cytologic period; and Dieters, who with Max Schultze carried on the work of Remak on the myelinated nerve fibres, and when one repeats Gerlach's definition of a nerve cell—"It is a cell which, through its axis-cylinder process, is continuous with a myelinated nerve fibre"—it will be at once apparent that in certain directions neuro-histology was making rapid strides, especially when it is kept in mind that this was the Car-

mine period, when differential stains were unknown. The names of Müller, Stilling, Génnaret, Baillarger, and later on those of Krause, Cohnheim, Corti, and finally the modern workers, Weigert, Waldeyer, Exner, Tuczek, Apathy, Cayal, Held, Van Gehucten, Golgi, Brelschowsky, and Nissil, who has done much splendid work both in neuro-histology and pathology, are all too well known to require more than passing mention.

Despite the fact that so many really great investigators have turned their attention to the work, and despite the fact that histologic studies of an extremely accurate and thorough character have been done, the sum total of the results obtained in the field of neuro-pathology and the correlation of the same with clinical observations has been extremely small. And it has been evident for some time that many of the psychoses which could be recognized as distinct clinical types showed no characteristic pathologic modification in the cortex cerebri after death. For this reason a large number of groups of cases have been designated functional psychoses, in contradistinction to those in which it was possible to demonstrate a definite and constant pathologic alteration after death. Of the clinical entities belonging to the latter class, Paresis or Dementia paralytica was the condition whose morbid anatomy and histology were earliest the subject of study and observation, and in 1822 Bayle described certain characteristic changes in the pia-arachnoid and certain other gross appearances which he regarded as pathognomonic of the paretic cortex. Tuczek's work in 1884, on the disappearance of the tangential and supra-radiary fibres in the brains of paretics was another epoch-making observation in the same condition, and Alzheimer, Vissl and others have made important contributions to the literature of the same condition. Work also has been done in the senile psychoses, certain of the alcoholic psychoses, and by Binswanger and Alzheimer in arterio-sclerotic conditions. It seems at the present time, however, that an exact pathologic basis in many of the mental diseases is not likely to be arrived at for some time to come.

Although the clinical method proper may be said to have originated with Bayle in 1822, it is not generally adopted, and for many years after this all prominent authorities featured the symptomatic method, though the conception of Hecker's Hebephrenia, Kahlbaum's Katatonie, Falret's Folie Circulaire, and Meynert's Amentia were all worked out along clinical lines, as were also two products which are distinctly Kraepelinian, namely, Dementia Praecox and the Maniaco-depressive psychosis. So

that the clinical method, while not in the strict sense a modern development, still in its much wider application it is truly a method whose usefulness has been much more widely recognized in recent times, to be of considerable value in aiding (or at least in being a step) in the progress that psychiatry is making.

The clinical method aims to make complete biographies in every case, beginning with the family history, and including in this all points of interest, going back as far as possible to obtain all important positive or negative evidence. Then tracing the development of the individual up to the date of the present illness, and in so doing the patient's norm is ascertained and all accidents or events which might tend in any way to modify the character of this norm are also learned. Then the chapter dealing with the incidents which have probably led up to the development of the psychosis brings us to a consideration of the present mental status, and physical condition of the individual, and it is hardly necessary to emphasize the importance of a thorough and searching analysis and examination. The course of the condition, its termination, the examination of the tissue pathologically in case of death, or the subsequent course of the case after discharge, in those who have recovered, round up the survey and tend to make it complete and exhaustive. Such is the clinical method, and although in many respects it was distinctly progressive, it had one disadvantageous feature, that it tried to force every case into one or another disease group, something palpably impossible, so that many eminent authorities are agreed, that, as Ziehen has expressed it, a single ideal classification of the psychoses may be impossible.

Kraepelin, the man who probably has done more for modern psychiatry than any other leader of recent times (not forgetting Wernicke's pioneer and inestimably valuable work), in 1890 established the first laboratory where physiological and morbid psychology could be studied side by side, to the very great advantage of both. That finer analyses, a better correlation of the ascertained facts, and a more rational consideration of the phenomena of mental disease naturally resulted, is not to be wondered at.

Kraepelin continued this splendid work at Heidelburg until two years ago (attracting students from all quarters of the globe), having for his pathologist Vissl, whose work on the histologic and pathologic side has made him equally well known to students of the literature. At the present time Kraepelin is chief of the clinic of psychiatry in Munich, doubtless the first clinic in the world.

Just a word in regard to the *individual method,* which is of recent development and bids fair to become the greatest advance psychiatry has yet made.

In this the questions are attacked from several standpoints: that of the psychologist, pathologist and physiological chemist, not working in each one alone, but in unison, correlating results obtained by laboratory methods, reducing to a minimum the personal equation, and ascertaining the nature of the normal psyche, noting the manifestations of this same psyche when in a diseased condition; learning all the facts, not necessarily trying to label conditions, but rather estimating exactly the full significance of all symptoms, thus arriving at the basic features which will insure more valuable forecasts as to the probable outcome of cases already developed, a means of formulating a system of preventive medicine, and the adoption of a more rational therapy.

Discussion.

Dr. Barnhardt.—The paper has been very interesting and is a valuable historical contribution. I regret that the limitation of time has prevented Dr. F. from bringing the *resumé* to greater completion regarding the present state of clinical psychiatry. In his closing remarks he indicated the three channels through which investigation must be made. There seems at present to be three distinct schools of investigation. They may be called the Anglo-Saxon, German and Latin schools. The Anglo-Saxon school is working at morbid anatomy, the German school is engaged on morbid physiology, while the Latin school has made most progress in morbid psychology. Classification is still the great bugbear of psychiatry. The only rational classification is a pathological one, and is the only one that is scientific. Any number or amount of observations on patients is of no value unless checked and interpreted by scientific process.

CHILDREN AND DISEASE.

By James Burke, M. D., Manitowoe, Wisc.

Children's diseases are generally the result of bad digestion and assimilation of their ingested food. Breast-fed babies are surer of proper progress in life, if the mother is healthy; if the latter is only of one of the many faulty standards of health—spells of fermentation of her food, with consequent alternations of diarrhea and constipation; or if the mother is addicted to the use of some "patent" medicine, for the "cure" of some, to her, indefinite ailment, not necessarily incapacitating her for household duties, or some other equally as vague standard of health, the nursling is bound to suffer to a proportionate degree. The mother's conversion of the three great classes of human food—carbohydrates, fats and proteids—must be right, in order that the child will be properly nourished. Especially is this true of the proteid content of her food; the ferments of proteid digestion in the stomach and intestines must be of the proper quality to revert the food protein into the right variety of amino-acids, capable of being reconstructed into protein homologous with the mother's tissues; but failure in this, to a degree, leaves a proportionate amount of heterologous protein, which is, with the homologous kind, absorbed from the walls of the intestines into the general circulation, there to be vicariously acted on by the tissues in an effort to convert it into homologous protein; but the vicarious action is but partially successful, and the residue is stored away in the tissues to await physical, chemical or medical interference to resolve it out of the tissues into the blood stream, where it is potent for good or evil, according to chemico-biological conditions presenting; a meeting and chemical union of which with a pseudo or other incomplete affinity results in an unstable entity termed a leucomain; leucomains are of variable degrees of toxicity, and bad digestion of proteids is a prolific source; unphysiologic catabolism of waste proteid is a lesser source of leucomains. Their presence in the body fluids, to an appreciable extent, and for a considerable time, sets up an artificial cellular life; the secretions—as milk—and excretions are abnormal. It is impossible to rear a normal child at the breast of a leucomain-laden mother.

So take time by the forelock and clean out such a mother's bowels with sulphate of magnesium or sodium, and thereby free

the villi and other glands, and the interstices of the intestinal walls, of the residue of the heterologous protein; practise asepsis of the bowel contents by the use of the sulphocarbolates, acetozone, or any one of the aromatic antiseptics, to prevent further fermentation and gaseous distension of the bowels, allowing the bowel walls an opportunity to resume their normal calibre and thickness, and the ingress of the proper quantity of blood to the intestinal glands to enable them to secrete the right quantity of ferments.

In the meantime, and following, the systemic leucomains must be disposed of.

The developmental and digestive ferments of the animal and vegetable kingdoms, ptomains and leucomains and the vegetable alkaloids and other active principles of medicines, are all of proteid origin, allied, and their ultimate simpler component units are chemico-biologically interchangeable.

Strychnine unites with the asthmatic leucomain to make of it a complete chemical entity for excretion; the nitrites neutralize the leucomain that causes regional or general spasticity of the musculature of the arterioles; veratrine rounds out the eclamptic leucomain and makes of it a harmless excretory entity; aconitine neutralizes the leucomain that causes the rapid, wiry pulse, with fever and an ashen skin; atropine, in medicinal doses, neutralizes the leucomain that causes a spastic condition of the peripheral arterioles—but atropine must not be given to nursing women. The use of alcoholic beverages is never indicated in any condition of nursing women; if secretion and excretion are properly attended to, little else will be required. Personal hygiene is paramount. If the mother is right, of body and mind, the nursling is fortunate.

HEARTY CONGRATULATIONS FOR DR. WILLIAM BAYARD OF ST. JOHN, N.B.

The seventieth anniversary of Dr. Wm Bayard's entry into the practice of his profession, fell Thursday, Aug. 1st, 1907, and the plans made to fittingly observe the memorable occasion were very successfully carried out. Not only from members of the medical profession in the city proper, but from outside points, including the University of Edinburgh, Scotland, the veteran physician's Alma Mater, came congratulatory messages, conveying the best wishes of men high up in the medical world. They bore striking testimony to the esteem and respect in which, after his long life and arduous labors in his profession, the grand old man of medicine is universally held.

At 4 o'clock yesterday afternoon members of the St. John Medical Society assembled at Dr. Bayard's residence, Germain Street, St. John, N.B. The sentiments of the society were expressed in a beautifully engrossed address, read by the president, Dr. T. H. Lunney. The ceremony took place in the drawing-room. Besides Dr. Bayard and members of his family, the following were present: Dr. T. H. Lunney, Dr. G. A. Hetherington, Dr. J. H. Scammell, Dr. W. L. Ellis, Dr. W. B. McVey, Dr. Thos. Walker, Dr. T. D. Walker, Dr. James Christie, Dr. T. E. Bishop, Dr. Murray Maclaren, Dr. O. J. McCully, Dr. W. W. White, Dr. Mary McLeod, Dr. P. R. Inches and Dr. Stewart Skinner. The address which Dr. Lunney read from the local society was as follows:

"St. John, N.B., Aug. 1, 1907.

"To William Bayard, Esq., M.D.:

"Dear Sir,—The members of the St. John Medical Society desire to extend to you their hearty congratulations on this the seventieth anniversary of your graduation as a doctor of medicine. Such an occasion is, we believe, unique in the history of the profession. When, as in your case, we find added to long years of faithful service, a strong personality commanding and retaining the respect and love of the community at large, we, your professional brothers, may indeed offer our sincere congratulations.

"Your seventy years of professional life have seen many and great advances in the science of medicine. Your natural ability, coupled with your untiring industry, have enabled you to keep

abreast of these improvements and so have won our admiration.

"It is a source of pride to us that your brethren, not only in this Province, but in the wider field of this Dominion, have honored you by elevating you at different times to the highest offices in their gift.

"Your devotion to every duty claimed from a medical man, as evidenced by your labors on behalf of the General Public Hospital, by your interest in matters pertaining to the public health and other kindred matters, merit our warmest thanks.

"It is most gratifying to us that your Alma Mater has honored you by conferring upon you the honorary degree of Doctor of Laws.

"It is our earnest prayer that the autumn of your life may yet hold in store for you many blessings and that you may be cheered by the consciousness of a life well spent and of work well done.

"T. H. LUNNEY, President.
"J. S. BENTLEY, Secretary."

A letter was read from Dr. I. W. Doherty, of Rexton, N.B. After congratulating Dr. Bayard on his anniversary Dr. Doherty stated that next to Dr. Bayard, he claimed to be the oldest registered physician in New Brunswick, and added that the first of August of the current year, would mark his sixty-seventh anniversary. He stated that for many years he has followed with pleasure Dr. Bayard's arduous career in his several endeavors to advance the standing of the medical profession in the Province, and to establish institutions and laws for the better care and treatment of those requiring it. While regretting that he was unable to be present at yesterday's function he expressed his heartfelt appreciation and extended his earnest congratulation to Dr. Bayard,

A letter from Dr. M. Chisholm, of Halifax, president of the New Brunswick Medical Society, was next read, accompanied by some verses appropriate to the occasion. The letter was as follows:

"Halifax, July 30, 1907.

"Dr. T. H. Lunney, President St. John Medical Society:

"Dear Sir,—You will kindly convey the cordial congratulations of the Maritime Medical Association to Dr. Bayard of your city, on the anniversary of his seventieth year in the profession. The evidence of a useful life well and nobly lived sits refulgant on his brow. May we be inspired by his example so that at

'our evening time,' too, 'it shall be light.' I have much pleasure in sending you this small token of the profession's esteem in the three Provinces.

"Very respectfully yours,

"M. CHISHOLM,

"President Maritime Medical Association."

The following verses accompanied Dr. Chisholm's letter:

In long years of mercy bending
You have lightened many a load,
Occupied your time in mending
Vases, shattered on the road.

In the twilight, in the dawning,
In the darkness of the night,
When the winter winds are storming,
When the summer days were bright.

When the sun was hot and blighting,
When the dew was on the grass,
When the elements were fighting,
When the snowdrifts blocked the pass.

When the rest of men and mortals
Were in slumber, soft and sweet.
When the order: "Man the portals,"
Came like thunder from the street.

Then to cheat the sleeper's charon
Of his freight across the stream,
You have buckled on your armor,
Fighting shy of pleasant dreams.

All your life a round of labor,
Making paths for others bright,
You have been to all a neighbor,
Now your even-time is light.

When the Master from His glory,
Calls to rest from weary toil,
May your life, so aged, so hoary,
Be repaired on heavenly soil.

Halifax, July 31, 1907. M. CHISHOLM.

The President also read telegrams from the New Brunswick Medical Society and the Canadian Medical Association, both expressing sentiments of a felicitous and congratulatory nature.

Edinburgh University Sends Good Wishes.

Dr. Thomas Walker followed with an address, which he read on behalf of the graduates and medical faculty of Edinburgh University, Scotland. A few days ago Dr. Walker received the address from the University coupled with a request that at the anniversary celebration he would act as their representative and present the address to their esteemed graduate. The address was as follows:

"University New Buildings,
"Edinburgh, July 9, 1907.

"To William Bayard, Esq., M.D., Edinburgh:

"Venerable and Dear Sir,—It is with keen interest and warm sympathy that the faculty of medicine of the University of Edinburgh have learned that on the 1st of August you celebrate the 70th anniversary of your graduation day and that the medical profession in New Brunswick intend to make this the occasion of demonstrating to you the respect and affection in which you are held.

"The faculty of medicine of your old university desire to join with your many friends in this celebration and they have instructed me to transmit to you their most cordial greetings and to offer you their most sincere congratulations.

"So far as we know you are the senior graduate on our roll, and it was with pleasure and pride that we listened to the account given to us by Dr. Walker, of the long, useful and honorable career that you have had in New Brunswick. We heard of the esteem in which you are held, of the good you have done and of your skill in your profession, and we are glad to think you are still at work.

"Venerable sir, a life such as yours reflects honor on our University. The names of our old professors: Graham, Alison, Home, Monro, Tertias, Hope, Hamilton, Jamieson, Christison, Charles Bell, Syme, Thomson, and Traill will no doubt call up to your mind many memories and associations of your student days. There is no one in the faculty now whose experience goes so far back. The occupancy of the chairs has been changed in most cases four or five times, but although the faculty as at

present constituted is thus far removed from the faculty as you knew it, I would fain hope that we are actuated by the same spirit as that which distinguished our predecessors, and that the honor and reputation of our University is as dear to us as it was to them.

"We trust that on the 1st of August the celebration held in your honor will be a source of gratification and pleasure to you, and we earnestly hope that in this the autumn of your life you have yet much happiness and useful work before you.

"I am, sir, yours most respectfully,

"D. I. CUNNINGHAM,

"Dean of the Faculty of Medicine of the University of Edinburgh."

Dr. Bayard, in making his reply, was deeply affected. He felt much touched, he said, by their expressions of regard and esteem, and would ask them to accept his deep thanks for the many kind and appreciative words which he had listened to. Dr. Bayard referred briefly in closing to the days before he became a graduate of Edinburgh, and recalled the voyage made to New York, where he studied for some months. The trip, he said, lasted twenty days, in marked contrast to the methods of travel at the present time. Dr. Bayard concluded by renewing his thanks for the many expressions of good will he had received.

Adjournment was then made for refreshments, and individual members of the Society extended their congratulations. Before leaving a group photograph was taken, with Dr. Bayard surrounded by the members of his profession.

Dr. Bayard is also in receipt of a personal letter of esteem from Dr. McPhedran, of Toronto, President of the Canadian Medical Association, a post which Dr. Bayard himself formerly occupied.—*St. John, N.B., Telegraph.*

Seventy years a physician. Seventy years of active work in the medical profession. Such is the record of Dr. William Bayard, of St. John, N.B., who on the first day of this month celebrated the seventieth anniversary of his admission to the ranks of the medical practitioners, for it was on August 1, 1837, the year that Queen Victoria ascended the throne, that this oldest of Canadian doctors, and one with probably an unparalleled history received his degree from the University of

Edinburgh, and set out to win fame and fortune in his chosen profession.

Although now ninety-three years of age, Dr. Bayard is still an active man. Although naturally the shoulders may be somewhat bent with the weight of years and the step may be slower, there is nothing about this wonderful man to denote his great age. The intellect is as bright as ever, and the Doctor still takes an active interest in passing affairs, and although he has practically retired from active practice, he still takes a deep interest in everything that pertains to his profession, and only a few weeks ago visited a patient twice a day during an illness.

Honored by Alma Mater.

This dean of the medical world was honored in a fitting way by his Alma Mater this week on the completion of his seventieth year's work. The following cable received by him tells the story:

"Edinburgh, July 19, 1907.

"Dr. William Bayard, St. John, N.B.

"Edinburgh University desires to confer upon its illustrious doctor of medicine of 1837 the honorary degree of Doctor of Laws in absentia, 26th July, 1907.

"William Turner.

"Vice-Chancellor University Edinburgh."

Naturally a man so long in the profession has some interesting stories to tell of his experiences. The Doctor has a vast fund of anecdotes to draw from, and in an interesting manner spoke of the early days of practice in New Brunswick.

"It was on August 1, 1837," he went on reminiscently, "that I received my degree, so I have been in practice seventy years, for I still attend some of my old patients. I've been a healthy man and always abstemious or I could never have gone through the immense amount of work that has fallen to me.

"I'll tell you about the first fee I ever received." Dr. Bayard opened his desk and took out a small, elaborately chased, silver object like a match box. "This is a case with two lancets in it," he explained. "I visited Liverpool on one occasion before I graduated at Edinburgh, and I met a Dr. Cameron who was attempting to bleed an old lady—blood letting, you know, was common in those days. I asked him to let me try, as he was

not very successful, remarking that I had bled hundreds of people in St. John. After some hesitation he consented, and the result was very satisfactory. The lady afterwards sent me this case with my crest and name on it, and that was my first fee."

Somewhat rashly the interviewer asked what was the most difficult operation Dr. Bayard ever performed. The doctor was for once at a loss. Seventy years opened up a long vista of practice. "I think," he said, "that my record of nineteen operations for strangulated hernia with the loss of only three, is the best answer I can give. The number of recoveries is said to be in general practice only seven per cent.

His Early Practice.

"After I returned from college, in November, 1837," the doctor went on, "I was not a day in St. John before I started to practice, being then associated with my father. Like all young doctors I suppose I had a great respect for my own learning and sank considerably in my own opinion on my first case. It was even worse when I was called to treat a woman in convulsions. My father cured her in ten minutes by preparing to cut off her hair. Turning to me the old gentleman remarked, 'Bill, you don't know much about hysteria!'"

It is well known that by his untiring zeal and perseverance in the public welfare Dr. Bayard gave to St. John one of its most useful public institutions—the general public hospital. "I was chairman of the hospital commission for nearly forty years," said Dr. Bayard, in reply to a question, "from 1863 to 1903. I was not many years in practice before experience taught me the necessity of a hospital in St. John. The poor house was the only resort for the suffering sick at that time. In 1860 the institution was established with much opposition from those who did not understand the requirements of a hospital. The tax for the support of it was unpopular, and we received many hard knocks.

Strides in Medicine.

The doctor also spoke in an interesting manner of the strides made in the science of medicine since he started practice.

"Looking back to 1837," he said, almost a revolution has occurred in the theory and treatment of many diseases. The abstraction of blood in those days was regarded as necessary in a case of inflammatory disease and it was some years before the

medical world realized that rest, and cold or hot applications, together with the use of certain drugs, should be substituted. Milk, too, has largely taken the place of stimulants.

"The microscope, new since my early days, has done wonders for medical science. The germ theory of diseases, as an example, owes its existence to it, and to chemistry. The thermometer, now in every doctor's pocket, was little used until 1856. Electricity and chemical analysis must not be forgotten, but the most distinguishing features which I can recall are anesthetics, antiseptics, and the germ theory.

"The power to give painless sleep on an operating table has paved the way to surgical operations which at one time would have been considered criminal. I can call to mind instances where more than one was required to hold the sufferer, and his cries could be heard in the street. Antiseptics have greatly lessened the mortality from wounds, and almost revolutionized their treatment.

"If I were to say anything on the progress of surgery, I should have to use technical terms. The modern surgeon, to give one instance, would not hesitate to open the cranium and remove a tumor. Before 1870 the interior of the cranium was a dark continent. The same advance has been made in regard to nearly every part of the human anatomy."

Dr. Bayard has travelled extensively and has visited every Province of the Dominion, and has also crossed the "pond" twenty-one times. His fame as a physician is known all over Canada, and there is not a town in his native Province that he has not visited at one time or another on important cases. Among his patients has been the Marquis of Lorne, who was ill while visiting St. John many years ago.

All the honors which his brother doctors in New Brunswick could bestow have been tendered to him, and the walls of his library are covered with testimonials which bear witness to the esteem in which he is universally held. His record of seventy years' work is declared to be without precedent, judging from his present health and vitality he has many years before him yet to enjoy the fruits of his long labors.—*Montreal Star.*

Proceedings of Societies.

CANADIAN MEDICAL ASSOCIATION.

When it is remembered that over 800 Canadian physicians registered the first day of the British Medical Association meeting in Toronto last year, surely it is not too much to expect that at least 300 will journey this year to Montreal to the fortieth annual meeting of their own national medical organization. If 300 are present with Standard Convention Certificates all will be returned home free.

HOW TO GET THERE AND HOW TO GET HOME.

The Standard Certificate plan prevails in every Province, no one requiring any certificate from the General Secretary. This means that all delegates, on purchasing single first-class tickets to Montreal, for themselves, their wives and their daughters (no others) should ask for and get, at the same time, a Standard Convention Certificate, from the ticket agent for each. These, when signed by the General Secretary at the meeting will entitle holder thereof to reduced transportation, which in all cases must be arranged for at Montreal. If 300 are present holding these certificates, all will be returned home free; one-third fare if 50 are present with certificates.

RAILWAYS AND STEAMBOATS.

The Canadian Pacific Railway, the Grand Trunk Railway, the Intercolonial Railway, all lines in the Eastern Canadian Passenger Association and the Richelieu and Ontario Navigation Company and Canadian Northern Railway, are included in the transportation arrangements. Delegates from points west of Fort William, will be permitted to use the Upper Lake Route, Fort William to Owen Sound, or *vice versa*, on extra payment of $4.25 one way or $8.50 both ways, when travelling on the Standard Certificate plan. Passengers going by rail, returning Richelieu and Ontario Navigation Company, or *vice versa*, rate to be one and one-half fare. Tickets will also be honored via R. and O. Nav. Co., on presentation of rail excursion ticket to the ticket agent at Toronto, or to the purser on board steamer

and payment of the following arbitraries, viz., $6.65, Toronto to Montreal; $3.50, Kingston to Montreal.

Those desiring to tour should consult with their local railway agents as to tourist tickets.

TRANSPORTATION RATES.

The following is the comparative schedule of transportation rates to Montreal from Victoria, $74.55; Vancouver, $74.55; Calgary, $59.50; Strathcona, $62.15; Rossland, $67.05; Nelson, 67.05; Medicine Hat, $53.20; Regina, $43.95; Brandon, $37.60; Winnipeg, 34.55; Kenora, $34.55; Fort William, $29.25; Port Arthur, $29.15; Soo, Ont., $18.00; Windsor, $15.00; Chatham, $14.75; London, $12.95; St. Thomas, $12.75; Woodstock, 12.10; Galt, $11.60; Toronto, $10.00; Guelph, $11.45; Hamilton, $10.65; Peterboro', $7.85; Ottawa, $3.35; Kingston, $5.30; Quebec, $4.90; St. John, N.B., $14.30; Halifax, N.S., $18.45; Sydney, C.B., $21.75.

DATES OF SALE OF TICKETS, TIME LIMITS, ETC.

Tickets will be on sale in the Eastern Canadian Passenger Association territory—Port Arthur to Halifax—three days before first day, Sunday not counted a day, and final return limit three days after the last day. From British Columbia points tickets will be sold and certificates issued on September 1st and 2nd, and validated certificates honored for return tickets up to and including October 9th. Tickets good for continuous passage only in each direction. West of Port Arthur and Fort William, the selling dates are September 5th, 6th, 7th and 8th. From stations west of Winnipeg tickets to be good going via trains that will connect with those leaving Winnipeg the before-mentioned dates; certificates to be honored at Montreal up to and including October 11th.

PLACE OF MEETING IN MONTREAL.

The meeting place will be the McGill University Buildings. The general meetings will be held in Molson Hall, the Medical Section in the lecture room of the Redpath Museum, and the Surgical and Pathological Sections in the lecture rooms of the Arts Building.

CERTIFICATE FEE.

The railway officer at Montreal, when exchanging Standard Convention Certificate for return transportation, will collect from each, for vising the same, a fee of twenty-five cents.

HOTEL ACCOMMODATION.

Delegates desiring to have hotel or lodgings reserved for them should apply to the local secretary, Dr. Ridley Mackenzie, 192 Peel Street, Montreal.

MEMBERSHIP.

The fee for membership is $2.00 and may be paid to the Treasurer, Dr. H. Beaumont Small, Ottawa, at time of registering. For the information of those who will apply for membership for the first time, the same transportation rates apply to them as well, and they are requested to ask for Application for Membership forms when registering.

THE SOCIAL SIDE AT MONTREAL.

There is to be a garden party at Terrace Bank through the kindness of Dr. and Mrs. Roddick, a smoking concert in the Victoria Armoury, a reception after the President's Address the first evening, in the Students' Union Building, a drive and luncheon at the Hunt Club for the ladies, golf matches, etc.

CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

During the meeting of the Canadian Medical Association, as usual, the annual meeting of the Canadian Medical Protective Association will take place. Dr. R. W. Powell, Ottawa, the President of the C.M.P.A., will deliver the annual address and present the annual report.

MILITARY SURGEONS.

There will also be a meeting of Canadian Military Surgeons, an organization which the Director-General of the Army Medical Service, Lieutenant-Colonel Carleton Jones, M.D., is promoting.

RE-ORGANIZATION.

Full discussion will take place on the report of the Special Committee on Re-organization. For this reason alone there should be a large and representative delegation from each Province.

ADDITIONAL INFORMATION.

Additional information of a local character may be obtained from the Local Secretary, Dr. Ridley Mackenzie, 192 Peel Street, Montreal; any general information from the General Secretary, Dr. George Elliott, 203 Beverley Street, Toronto.

PROVISIONAL PROGRAMME.

Presidential Address—Dr. A. McPhedran, Toronto.

Address in Medicine—Dr. Davy Rolleston, London, England.

Address in Surgery—Dr. Ingersoll Olmsted, Hamilton, Ont.

Address in Pathology—Dr. J. George Adami, Montreal.

Discussion in Medicine—Cerebro-spinal Meningitis—Introduced by Dr. J. J. Mackenzie, Toronto; Dr. H. A. Lafleur, Montreal; Dr. A. D. Blackader, Montreal.

Discussion in Surgery—Hypertrophy of the Prostate:

Etiology and Pathology—Dr. G. E. Armstrong, Montreal.

Symptomatology and Diagnosis—Dr. F. N. G. Starr, Toronto.

Treatment—Non-surgical—

" —Operative—Dr. James Bell, Montreal.

Section of Laboratory Workers. The following have promised papers :

Dr. G. W. Ross, Toronto; Dr. Gibson, Kingston; Dr. Rankin, Montreal—Reporting work on Opsonius.

Dr. J. J. Maskenzie, Toronto—Generalized Blastomycosis.

Dr. Campbell Howard, Montreal—A Study of the Eosinophile cells of the blood.

Dr. McKee, Montreal—On Retinosis Pigmentosa.

Dr. Dickson, Toronto—On the Significance of the Glomerula Changes in the Kidney.

Dr. J. McCrae, Montreal—The Neuroses in the Liver in Eclampsia and other diseases.

Dr. Tooke, Montreal—On Injuries of the Cornea.

Dr. Klotz, Montreal—The Lesions in the Media of the Arteries.

PAPERS.

Listerism—Dr. A. H. Wright, Toronto.

Seven hundred and Fifty Abdominal Sections and the Lessons They Have Taught Me—Dr. A. Lapthorn Smith, Montreal.

Comparative Anatomy of the Fundus Oculi, with Lantern Illustrations—Dr. G. Sterling Ryerson, Toronto.

A Case of Primary Bilateral Mastoiditis—Dr. Perry G. Goldsmith, Toronto.

Title to be Announced—Dr. Gordon Byers, Montreal.

Notes on Tubercular Bacilli Isolated from Fatal Cases of Primary Cervical Tubercular Adenitis—Dr. Duval, Montreal.

Bacteræmia Colon, Its Diagnosis and its Diagnostic and Prognostic Value—Dr. Fraser Gurd, Montreal.

Cancer of the Breast—Dr. George E. Armstrong, Montreal.

Modern Methods in Diagnosis of Tuberculosis of the Kidney—Dr. R. P. Campbell, Montreal.

Clinical Side of Ectopic Pregnancy—Dr. W. W. Chipman, Montreal.

Danger Signals in Anæsthesia—Dr. Samuel Johnston, Toronto.

Psychology of the Sick Room—Dr. John Hunter, Toronto.

Paresis : Certain Features in Regard to the Etiology and Differential Diagnosis—Dr. John G. Fitzgerald, Toronto.

The Normal Temperature—Dr. R. D. Rudolf, Toronto.

The Rights of Children—Dr. C. J. C. O. Hastings, Toronto.

The Defensive Action of Products of Metabolism—Dr. Graham Chambers, Toronto.

Treatment of Neurasthenia—Dr. E. C. Burson, Toronto.

Papers are also expected from the following : Dr. Connell, Kingston; Dr. Keenan, Montreal; Professor Harrison, St. Anne de Bellevue; Dr. A. W. Moody, Winnipeg; Dr. W. F. Hamilton, Montreal; Dr. F. G. Finley, Montreal; Dr. C. F. Martin. Montreal; Dr. Colin Russell, Montreal; Dr. Campbell P. Howard, Montreal; Dr. A. G. Nicholls, Montreal; Dr. Ridley Mackenzie, Montreal; Drs. Lyman and D. A. Shirres, Montreal; Dr. B. W. D. Gillies, Vancouver; Dr. A. H. Gordon, Montreal, and from Drs. Lowrey, H. B. Anderson, H. C. Parsons, W. B. Thistle, R. J. Dwyer and A. R. Gordon, Toronto.

When and How to Resume Normal Feeding in Convalescence from Typhoid Fever—Dr. J. T. Fotheringham, Toronto.

Dr. Maud E. Abbott, Montreal, will present an Exhibition of Pathological Specimens from the McGill Medical Museum, illustrating the circulatory system.

Prof. J. J. Mackenzie, Toronto, will also exhibit pathological specimen.

Dr. Robert Wilson, Montreal, will give an exhibition of X-ray plates from the different hospitals.

The Occurrence of Congenital Adhesions in the Left Common Iliac Vein—Dr. J. Playfair McMurrich, Toronto.

Sigmoiditis and Diverticulitis of the Rectum—Dr. D. A. L. Graham, Toronto.

Ample accommodation has been provided in the Arts Building, Peter Redpath Museum, the Physics Building and the McGee Union. The lecture halls are provided with lanterns, and it is hoped papers will be illustrated by this means. Interesting clinical material will be shown at the Royal Victoria Hospital, Montreal General, Notre Dame Hospital and the Hotel Dieu on the mornings of the meetings at 8.30.

Physician's Library.

Practical Fever Nursing. By EDWARD C. REGISTER, M.D., Professor of the Practice of Medicine in the North Carolina Medical College. Octavo volume of 352 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Canadian agents: J. A. Carveth & Co., Limited, Toronto. Cloth, $2.50 net.

This is a comprehensive work of 338 pages of text. The aim and scope thereof is to give to nurses a working text-book at once complete and practical. After general considerations as to instruction in the proper duties of the nurse in the sick room, such as taking and recording pulse, temperature, respiration, the use of hypodermic syringe, rectal tube, catheterization, etc., the different fevers are taken up separately and dealt with under such heads as Causation, Symptoms, Complications, Diagnosis, Prognosis and Treatment. The book is also nicely and appropriately illustrated.

Surgery: Its Principles and Practice. In five volumes. By 66 eminent surgeons. Edited by W. W. KEEN, M.D., LL.D., Hon. F.R.C.S., England and Edinburgh, Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Vol. II. Octavo of 920 pages, with 572 text-illustrations and 9 colored plates. Philadelphia and London: W. B. Saunders Company, 1907. Canadian agents: J. A. Carveth & Co., Limited, Toronto. Per volume, cloth, $7.00 net; half morocco, $8.00 net.

The second volume of this important system of surgery is now before us. It has for its contributors: John Fairbairn Binnie, A.M., C.M.; John Chalmers DeCosta, M.D.; F. X. Dercum, M.D.; Daniel N. Eisendrath, A.B., M.D.; John A. Fordyce, A.M., M.D.; Frederic Henry Gerrish, A.M., M.D., LL.D.; Robert W. Lovett, M.D.; Edward Hall Nichols, A.M., M.D.; William G. Spiller, M.D., and George Woolsey, A.B., M.D. In this volume the following are the subjects of the thirteen chapters: Diseases of the Bones; Fractures; Surgery of the Joints; Dislocations; Surgery of the Muscles, Tendons and

Bursal; Orthopedic Surgery; Surgery of the Lymphatic System; Surgery of the Skin; Pathology of the Chief Surgical Disorders of the Nervous System and Its Importance in Clinical Diagnosis; the Surgery of the Nerves; Traumatic Neurasthenia; Traumatic Hysteria, and Traumatic Insanity; Surgery Among the Insane and the Surgery of Insanity; Surgery of the Spine. The perusal of this volume shows it to be an intensely interesting one, and those wishing to keep abreast of the times will not do better than by getting this work.

Manual of Diseases of the Eye. By CHARLES H. MAY, Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University. New York.—1890-1903; Ophthalmic Surgeon to the City Hospitals, Randall's Island, New York; Consulting Ophthalmologist to the French Hospital, to the Gouverneur Hospital, and to the Red Cross Hospital, New York; Adjunct Ophthalmic Surgeon to Mt. Sinal Hospital, New York, etc. Fifth edition revised, with 362 original illustrations, 22 plates and 63 colored figures. 1907. New York: Wm. Wood & Co. $2.00 net.

No better manual of diseases of the eye has come under our notice in some years. This is the fifth edition, and it bears evidence of careful revision from the fourth edition of 1905. The illustrations are many and admirable. The manual is thoroughly up to date. We recommend it highly to students and general practitioners.

Treatment of Diseases of Children. By CHARLES GILMORE KERLEY, M.D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, etc. Octavo volume of 597 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Canadian agents, J. A. Carveth & Co., Limited, Toronto. Cloth, $5.00 net; half morocco, $6.50 net.

Success in the practice of general medicine very often depends upon the successful management of children in times of sickness. This book is essentially for such. It is not a book,

which has been written from reviews and primal articles. Rather it is one prepared from special personal observation and experience of the author, and is, therefore, all the more valuable in that it does not exploit theories but bases its *raison d'état* upon extensive hospital and private experience amongst children. It will be found a valuable adjunct to the working library of all physicians.

Modern Methods of Diagnosis in Urinary Surgery. By EDWARD D. EANDSLEY, M.D., B.Sc.; London: F.R.C.S. London: H. K. Lewis, 136 Gower Street, W.C. 1907. Three shillings.

A handy little manual dealing with the use of modern genito-urinary instruments, more particularly the cystoscope, and urinary separators, such as those designed by Luys and Cathelin.

Five Hundred Surgical Suggestions Practical Brevities in Surgical Diagnosis and Treatment. By WALTER M. BRICKNER, B.S., M.D., Chief of Surgical Department, Mount Sinai Hospital Dispensary, New York; Editor-in-Chief, *American Journal of Surgery*, and ELI MOSCHCOWITZ, A.B., M.D., Assistant Physician, Mount Sinai Hospital Dispensary, New York; Associate Editor, *American Journal of Surgery. Second Series.* Duodecimo: 125 pages. New York: Surgery Publishing Co., 92 William Street. 1907. Price, $1.00.

It is not surprising that the first edition of "Surgical Suggestions" was quickly exhausted. The attractive little volume was most favorably received by reviewers, and its contents—the snappy, practical "suggestions"—have been reprinted again and again by medical journals all over the country.

In this second series all the surgical suggestions of the first issue have been incorporated, and as many more, making a total of five hundred terse, useful "therapeutic hints and diagnostic wrinkles." Several new topics have been thus introduced and the old ones much expanded. An index is provided. The paragraphs, as before, have all been suggested by the authors' own observations. Many of them are bits of wisdom that are not

to be found in the text-books. We do not believe that even an experienced surgeon will fail to find among these five hundred suggestions some hints that will repay him many fold for the leisure hour spent in reading this small manual. And to those who have not enjoyed many years of active surgical work, five hundred practical, epigrammatic surgical dicta will surely prove immensely helpful. The internist is concerned in the diagnosis of surgical and borderline affections, and to him, also, we commend the many diagnostic hints between the covers of this little book.

As before, the publication has been prepared in a manner worthy of its unique contents. It is a pocket manual de luxe! —printed in attractive Cheltenham type, on antique India tint paper, with marginal headings and sub-heads in contrasting ink, and with an artistic binding of heavy cloth, gold-lettered.

We warmly commend this book. Those wearied by searching for information through ponderous text-books and lengthy articles will find actual refreshment in "Surgical Suggestions," everyone of the 500 paragraphs of which is a separate and useful bit of practical knowledge.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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Dominion Medical Monthly

And Ontario Medical Journal

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VOL. XXIX. TORONTO, SEPTEMBER, 1907. No. 3.

COMMENT FROM MONTH TO MONTH.

Toronto Correspondence in New York Medical Journal.—The departure of Dr. C. K. Clarke, superintendent of the Toronto Provincial Hospital for the Insane, at the instance of the Ontario government, accompanied by Dr. Edward Ryan, superintendent of a similar institution at Kingston, and followed by that of the Honorable Dr. Willoughby, minister without portfolio in the Ontario Cabinet, to join them at the German psychiatric clinics, where the three are to investigate and observe the latest methods adopted in those clinics of treating the insane, indicates the progressive policy on the part of the government of placing psychiatrics in the front rank in this Province. Just why the Honorable Dr. Willoughby has been selected to take part in this manœuvre is not quite clear to the psychiatrists in Ontario, as he was never before announced to be a specialist in this department of medicine, having so far been but a general practitioner in a small lake port town and a politician. However, the government is to be congratulated that it did not send three politicians. It begins to look as though the government of this Province was getting its eyes opened in the direction of psychiatrics, although its latest appointment to a superintendency of one of the Provincial hospitals for the insane shows

clearly that it will come hard for it to divorce politics and psychiatry. Probably in no country, certainly not in Canada in recent years, has there been such a ridiculous practice carried out as the appointment of superintendents of these institutions over the heads of trained assistants, superintendents whose chief qualifications were that they had been busy in the party caucus, on the hustings, on the back township side lines, or in the close and stuffy atmosphere of the ward committee room. But the present administration is only carrying out the policy pursued by the late Liberal government in this respect, which saddled the ridiculous and silly system upon the Province, caring nothing for the welfare of its unfortunate wards, caring less for the alienists, who, as assistants, had made the study of psychiatry their life work. As a superintendent was lately removed because he had been too keen a partisan of the late government, so now the present superintendents may well be set quaking when one of the ministers, and he without portfolio, is entering the arena of psychiatry and will return to Ontario knowing all about it as it is in Germany, and also the political side of it as it is known in Ontario. Even in the matter of the selection and appointment of assistants and their transfer, it is the politician who exercises the magic wand and says who is and who is not fitted to be an alienist. Through men being passed over year after year in this self same way, Ontario lost one of the ablest alienists in America; and if the government intends to be sincere in entering upon a progressive policy with regard to psychiatry in this Province, it must, to convince the medical profession, and the alienists in particular, cut loose entirely from these political appointments of medical superintendents as rewards for party service. The Ontario medical profession is not yet convinced that the government intends to take proceedings in this direction; for almost in the same breath that the Minister was ordering the commission to Germany he was making a politician the superintendent of the largest hospital for the insane in the Province.

Toward the better study of psychiatry in Ontario there is now issued a journal by order of the Legislative Assembly. This is the *Bulletin of the Toronto Hospital for the Insane;* and from the second number, that of June, one learns what a large field there is to work in this Province. The Toronto Hospital for the Insane accommodates 850 patients; Hamilton, 1,100; London, 1,050; Mimico, 650; Kingston, 625; Brockville, 675; Cobourg, 150; Penetanguishene, 250; Orillia (imbeciles), 800;

Woodstock (epileptics), 180. Distributed among these are ten superintendents and seventeen assistants. Surely among seventeen assistants the government could find one now and again worthy of promotion to the office of chief of one of the institutions.

Editorial in New York Medical Journal, Aug. 10th, 1907—Psychiatry in Ontario.—In this issue we publish a letter from our Toronto correspondent which deals largely with the management of lunatic asylums in the Province of Ontario. What he has to say will be read with interest in this country as well as in Canada, for we have not yet wholly emancipated ourselves from acquiescence in the politician's fine work in procuring appointments of asylum medical officers, though much has been accomplished in that direction of late years.

But it is not always politics properly so called that governs the selection of asylum superintendents, setting men of no special pretensions as alienists over the heads of others more experienced in psychiatry. A public institution for the care of the insane is still in most instances something more than a "clinic"; some of its most important affairs may not best be conducted by a man notably skilled in psychiatry. It is to provide for sagacious management of these affairs, we may suppose, that other qualities than proficiency in psychiatry govern the selection of a superintendent.

The affairs which we have in mind are mostly of a "business" nature—the care of the property, the projection of additions and improvements, the judicious purchase of supplies, and the like. These matters are undoubtedly of great importance, but it may not be the height of wisdom to demand that the medical superintendent shall be charged with them, save in an advisory capacity. A capable steward might perhaps manage most of them so far as the ordinary routine goes. The medical superintendent, it seems to us, need not be a man trained exclusively or almost exclusively in psychiatry; he should rather be a physician of general experience and of known wisdom and tact in dealing with professional subordinates. He should certainly be the highest officer of the staff, but he should not be bound down either by economic responsibilities on the one hand or by the intimate care of individual inmates on the other. Such conditions are virtually realized in some of our best regulated institutions for the care of the insane.

Our Ontario neighbors are too progressive and astute to go far astray in the matter of asylum management, at least for any great length of time, and we believe that the Ontario Government's appointment of a medical commission to study German methods of psychiatry argues a settled purpose on its part to attempt all possible advances in the care of the insane.

Editorial in New York Medical Journal, July 20th, 1907—Psychogenesis in modern Psychiatry.—Psychiatry may be said to-day to be in a period of *renaissance*. Awaking as it did only a few years ago from a condition in which it was almost hopelessly dormant, its first impulse was to assimilate and ally itself with medicine. In yielding to this instinct, as was but natural to expect, the methods of medicine were adopted bodily and the solution of psychiatric problems was sought along orthodox clinical lines. This move led to the general hospital idea among the asylums for the insane and the introduction of pathological laboratories in the effort to correlate the clinical pictures with post mortem findings. The general hospital idea did much toward an amelioration of the condition of the insane and toward more rational methods of dealing with them, but the pathological laboratory failed to a considerable degree to do what had been expected of it. This failure was due in the main to two factors: First, the so-called clinical types were not sufficiently clearly defined to warrant generalizations on the basis of post mortem findings; and, second, a host of cases, in fact, whole classes of cases, practically never came to autopsy, or if they did, death had been the result of an intercurrent disease which effectually clouded the findings. Then, again, in those few cases when certain findings seemed to be fairly constant, the actual relations between these findings and the psychic facts were not at all clear, and efforts at explanation too often led, on the other hand, to gratuitous theorizing or, on the other, to metaphysical discursions.

Out of this unsatisfactory state of affairs arose the conviction that the problems of psychiatry, while in general problems of medicine, were after all essentially different and required different methods of attack. The first result of this vague conviction was the psychological laboratory and an attempt to apply the methods of normal psychology in psychiatry. Great expectations were entertained by the sponsors for this change, but it

soon became apparent that the accumulation of reaction time averages was not psychiatry, and that for the solution of the problems of psychopathology the methods of normal psychology must needs be modified to suit the changed conditions.

With the application and modification of the methods of laboratory psychology to the problems of psychopathology the importance of the post mortem findings lapsed, and the wealth of problems which appeared on the horizon at once indicated that the practical thing to do was to study the conditions as they offered at first hand rather than waste time and energy on the abstruse problems of the relation of mind to brain.

Out of the changed *milieu* thus brought about grew different conceptions. The mind came to be considered from a more broadly biological viewpoint—no longer in the contracted perspective of the pathologist as a function of the brain, but rather as an adaptive mechanism seeking an adjustment of the individual to conditions. Thus the phenomena of psychopathology were evidences of a maladjustment, and it became of more importance to analyze mental make up and methods of reaction to conditions than to endeavor to outline disease entities, to define types. Thus has psychiatry in its waking up gone through a process of shaking down to a fundamental basis of method—the development of points of view—distinctly its own, a process necessary for every new science before it can proceed in an orderly way to the solution of the various problems that come legitimately within its domain.

This, then, has been the evolution of the psychogenic idea in modern psychiatry—the point of view which seeks for mental causes for mental disorders. The importance of this conception has been well brought out by August Hoch in Psychogenic Factors in the Development of Psychosis (*Psychiatric Bulletin,* June 15th). He calls attention to the facts that in one psychosis at least, the anxiety psychosis, the mental causation is generally recognized, and that the fretting and worry which acted as causes may be seen to graduate into and form part of the picture of the fully developed psychosis. He says: "The conflict, therefore, which existed before the breakdown and the reaction to this conflict are still present in the disease itself. That such a clear relation is not observable in other conditions is evidently an important reason for the relative disregard of mental causes in psychiatry."

While it is true that there is a general disregard of the psychogenic factors, a few investigators have done a great work in

calling attention to them, describing them, and outlining methods for their recognition and investigation. Freud has perhaps demonstrated most ably their importance, both in the phenomena of normal and in those of abnormal mental life. He has shown how various symptoms may arise as a result of distorted perspective, faulty valuations, efforts at the suppression of disagreeable experiences; how disagreeable experiences may become submerged and thus play their part in endeavoring to bring about a squaring of the individual with conditions. In other words, the mentality may be distorted, bent, crushed, deformed at points. These phenomena occurring in normal persons may be corrected by proper adjustment, but in some the first displacement merely creates a point of least resistance and the fault grows by its own weight.

How the various symptoms can be explained by this theory can hardly be appreciated except by reading the records of cases and their explanations. A single instance, cited by Hoch, might, however, serve to make clearer the general proposition of the influence of the psychogenic factors and how the resulting symptoms are explainable as reactions and as efforts at adaptation. A girl, disappointed by her lover, for whom she waited for a long time, fell into a delirium in which she believed her lover to have arrived, and she had hallucinations of all the necessary occurrences required to the fulfillment of her desires and interpreted her surroundings in accordance with them.

For the methods of investigating these phenomena, especially when they are due to "buried complexes," we are largely indebted to Jung. He has shown how they may be discovered by studying the patients' reaction by association to certain test words. To Blender, Strausky, and Jung also we are indebted for careful studies of these conditions in the several psychoses, particularly paranoia, hysteria, and dementia præcox, while the exploitation of the dynamic principle in psychopathology has been undertaken in this country, especially by Meyer, Hoch, White, and others.

From all this it will be seen that a new era seems to have been initiated by the opening up of distinctly psychopathological methods, and from the present indications in psychiatric literature the psychological laboratory will in future be considered as much of a necessity in connection with an asylum or clinic as the pathological laboratory was formerly. As wholesome indications of this tendency might be mentioned the psycho-

logical laboratory established a few years ago at the McLean Hospital, Worcester, Mass., and in the past few months the creation of a psychological department with a well equipped laboratory in connection with the Government Hospital for the Insane in Washington, D.C.

Editorial in Montreal Medical Journal—Asylum Appointments.—We have seen repeated editorial comment upon the speeches at the recent meeting in Toronto, at which Dr. Barnhart, of New York, spoke strongly against the political aspect of appointments to asylums in Canada. This is ground that we have often before held in these columns, and we make no apology for reproducing the words used on that occasion by Dr. T. J. W. Burgess of Verdun:

"In an address, 'The Insane in Canada,' delivered at San Antonia, Texas, two years ago, as President of the American Medico-Psychological Association, I summed up my remarks by saying, that while with respect to custodial care and ordinary treatment, moral and medical, Canada, generally speaking, was well up to the times, she was doing little toward the solution of the many problems connected with the scientific aspect of insanity, and, in this respect, she presented a sorry picture when compared with the good work being done in many hospitals elsewhere.

With the erection of a Psychiatric Hospital, as outlined by Dr. Clarke, such a reproach can no longer be made, and, as a native of this Province, I am proud to think that Ontario should be the first to take a step that will place her not only foremost as regards this Canada of ours, but foremost as regards the whole vast continent of America.

In praise of the wisdom of the Government for taking such an advanced view too much cannot be said; and here let me tell you that such an establishment will be not only a boon to the most unfortunate of all God's afflicted ones, the insane, but a true economy. Most of you, I have no doubt, know how very prone mental disorders are to become chronic and incurable; and some of you are probably aware that, once the acute stage is passed, lunatics are even more likely than the sane to live to a ripe old age, because protected within hospital walls from so many malign influences. But have any of you thought what each thirty or forty years of lunatic life costs, not only in actual

outlay for hospital care but in the loss to the state of the wage-earning power of each insane person. It is simply an enormous sum, and if the establishment of a Psychiatric Clinic increases the ratio of cures by even five per cent., as I feel sure it will do, the institution will more than pay for its cost no matter how large that may be. For their choice of a superintendent for the new clinic the government deserves no less praise. To Dr. Clarke we are indebted for our first training school for nurses for the insane, our first isolated hospital for the treatment of the sick insane, and, I think, for our first building for the segregation of the tubercular insane. In the length and breadth of the land no better or more experienced man could have been chosen. I wish I could say the same for the rest of their appointments. To get the best results in our hospitals for the insane all medical appointments thereto should be of men thoroughly trained and experienced in every branch of the specialty, and yet how rarely we see this rule observed. The appointment of outside practitioners to superintendships for political purposes is a flagrant injustice to the patients, to the taxpayers, and to deserving juniors, of whom there are many in the service. No man should be given charge of an institution for the insane unless possessed of experience in the treatment of the insane, and no junior should be appointed unless he has had special training in psychiatry and has shown a penchant for the work.

I speak feelingly on this subject, gentlemen, because I myself have gone through the mill. Sixteen of the best years of my life were spent in the asylum service of Ontario, and when time and again I saw myself passed over in favor of some outside man, though the senior for promotion, I thought it was time to quit, which I did. This was, of course, under the regime of the late Government. Whether the present one would have treated me any better, I cannot say, but I think it extremely doubtful.

Do not think that I blame the Government entirely for the wrong done by the appointment of outside practitioners. The men who accept such positions without previous experience are equally blameworthy. As bearing on this point I would like to quote you a few words by one of the ablest writers, himself a physician, in the city of Montreal. They appeared in an editorial, "Insanity and Politics," published in the *Montreal Medical Journal*. In this the author says: "We yield to none in our admiration of the general practitioner. We are aware

of his energy, his resource and his fidelity, but not even the general practitioner will lay claim to a capacity for treating off-hand and to the best advantage grave lesions of the eye and ear, or of the more secret parts of the body. He should adopt the same attitude toward the brain. In time it will come to be a shameful thing for a general practitioner to accept a position for which he is not qualified, since thereby he is committing a wrong towards his colleagues and towards his patients."

To my mind the ideal asylum service is that which exists in New York State. There, all superintendents are appointed by the Boards of Management of the various institutions, and must be selected from men who have served at least five years in an institution for the insane, and have proved their capacity by passing an examination for a superintendency. The assistants are appointed by superintendents, their selection being restricted to the three names first on the list of these eligible for the vacancy. No step in advance can be won unless the candidate has had previous experience in a lower grade of the specialty, and proven his fitness by passing an examination before promotion.

In conclusion, gentlemen, I would urge upon the profession that they should combine to right this wrong in the matter of asylum appointments. If only the medical men of this Province, as a whole, would say, "We wish the system of the promotion of deserving juniors to be established," no Government dare gainsay them. It is for this Association, representing as it does the very pick of the profession, to set the ball rolling, and I sincerely trust that ere the close of your sessions some steps towards that end will be taken. In this way, better than any other I know of, you will put yourselves in a position to attain the ideals for asylum work in Ontario, a height which I feel sure you all aspire to see the service reach."

Acute Diverticulitis of the Sigmoid with Intra-Abdominal Abscesses.—At the meeting of the New York Surgical Society held on March 27th last, as reported in the July number of the *Annals of Surgery*, Dr. George Emerson Brewer presented an interesting case, with the following history:

The patient, a man 45 years old, had enjoyed good health up to the time of the illness under discussion. He had never suffered from digestive disturbances suggestive of appendicitis, gall stone colic or peritonitis.

In August, 1902, while at dinner, he was suddenly seized with an attack of abdominal pain, with nausea and faintness, which necessitated his leaving the table. The severity of the attack soon passed off, and he was able to join his friends later in the evening. The following night proved a restless one, as he had more or less constant pain in the lower portion of the abdomen, which prevented sleep, and at times was accompanied by nausea and general bodily weakness. The following day he continued to feel badly, but kept up and about for the reason that he was a guest at a country house, and did not wish to inconvenience his host. Later in the day he went for a drive, and suffered acutely from the jolting of the vehicle. In the evening he was obliged to call a physician, who, after an examination, pronounced the case one of colitis. He returned to the city the following day, and, as the symptoms continued, he remained in bed. During five days he continued to suffer with pain in the lower left quadrant of the abdomen, together with fever and general malaise.

When Dr. Brewer first saw the patient his temperature was 103; pulse, 110; leucocytes, 17,000. There was marked rigidity of the left rectus muscle, and a tender mass in the iliac fossa. He was immediately removed to the Roosevelt Hospital, and under ether anesthesia an incision was made over the most prominent portion of the tumor. After dividing the tissues of the abdominal wall, a large abscess cavity was entered which contained about four ounces of foul pus, and an oblong fæcal concretion. On washing out the abscess cavity, a small ulceration was seen in the wall of the sigmoid, through which there was a slight fæcal discharge. The cavity was packed with sterile gauze, the wound partly united, and a dressing applied.

After operation the temperature and pulse rapidly declined to normal, the pain ceased, and the appetite returned. The discharge from the abscess cavity gradually diminished until a cathartic was administered on the fourth or fifth day. This gave rise to a very abundant fæcal discharge, which continued for several days. It then began to diminish, and the sinus finally closed in about six weeks from the time of operation. The patient has since been in perfect health.

During the discussion, Dr. Woolsey said he had seen these diverticulæ of the gut at autopsy, but never as a cause of infection. The case is interesting as bearing on the etiology of left sided intra-abdominal infection.

At the same meeting of the New York Surgical Society, Dr. Brewer also presented a man, 23 years old, a native of Russia,

who was admitted to the Roosevelt Hospital in January, 1907. For six weeks previous to his admission he had suffered from pain between the shoulder, stiffness of the back, and a progressive loss of weight and strength. On examination, a large fluctuating swelling was found between the scapulæ over the spinous processes of the third and fourth dorsal vertebræ. On aspiration, a dark, chocolate-colored fluid was withdrawn. There was moderate rigidity of the dorsal spine, pain on motion, and marked tenderness over the swelling.

Under ether anesthesia, an incision 15 cm. in length, was made over the tumor, and the tissues divided until the abscess was reached, beneath the erector spinæ muscles. About four ounces of pus were evacuated. On further examination it was found that the spinous process of one of the vertebræ together with a portion of its lamina and the areb of an adjacent vertebra, were exposed and more or less necrotic. These were removed and the entire abscess cavity dissected out. The surrounding parts were then douched with 1-100 solution of formalin, and the extensive wound united by deep and superficial sutures. Practically no reaction followed the operation, and the wound healed without suppuration. Patient left hospital in about two weeks.

Three or four weeks later he returned, complaining of pain in the lumbar region, and upon examination a similar fluctuating tumor was found lying to the right of the upper three lumbar spines. A second operation, similar to the first, was performed, but healing was somewhat delayed by suppuration. Patient left hospital in three weeks.

Microscopical examination of the pus and tissues removed from both foci showed abundant blastomycetes. No cutaneous or other primary lesion could be found, and there was no evidence of lung involvement, or lesion of any other organ or tissue.

Dr. Brewer said this was the first case recorded of an apparently primary blastomycotic lesion of bone, and the only case of involvement of the spine in which improvement or cure had been noted.

Canadian Medical Association.—Do not forget the dates—Sept. 11th, 12th, 13th and 14th, 1907. Purchase single first-class ticket to Montreal, and get from ticket agent a Standard Convention Certificate.

News Items.

Dr. O. Weld, Vancouver, is in England.

Dr. Massie, Santa Fe, New Mexico, is visiting in Toronto

Dr. McNally, of Tara, has sold his practice to Dr. McCash, of Sarnia.

Canadian Medical Association, Sept. 11th, 12th, 13th, and 14th.

Dr. Walter McKeown, Toronto, is now practising surgery exclusively.

Dr. W. A. Wilkins has resigned from Professorship of Histology in McGill University.

Dr. J. Russell, formerly of the Hospital for the Insane at Hamilton, is visiting in Calgary.

Dr. Edwards, a native of Halton, is the latest addition to the medical profession in Brampton.

Dr E. S. Coultes, of Philadelphia, has been spending a few weeks at the parental home, Bluevale.

Dr. Chas. H. Hair, Cobalt, has been appointed Associate Coroner for the district of Nipissing.

Dr. A. H. Perfect, of Toronto Junction, has been gazetted as associate coroner for York County.

Dr. J. D. Lafferty, Calgary, has been elected Chairman of the Provincial Board of Health of Alberta.

Dr. F. N. G. Starr, Toronto, has relinquished general practice, and now devotes his work to surgery.

Dr. W. and Mrs. Gunn, of Clinton, returned last week from a two months' trip to Great Britain and the Continent.

Dr. J. R. Jones, Winnipeg, Man., has returned from England, and we are glad to announce he has greatly improved in health.

Dr John Malloch, F.R.C.S., Toronto, has returned home and resumed practice, after two years' graduate work in England.

Dr. Darragh, who till very recently practiced medicine at New Hamburg, but late of Conestogo, died at that place on Aug. 9th.

Dr. N. E. McKay, Halifax, has resigned from Professor of Surgery in the Halifax Medical College, and has been succeeded by Dr. Hogan.

Dr. C. H. Montgomery has returned to Orillia after four years of studying special lines of work in England and the continent.

Dr. W. Shipley, son of Wm. Shipley, of Clinton, left last week for Calgary, Alta., where he will enter on his career as a practising physician.

Dr. Richard Coughlin, who has practised medicine in Hastings for some twenty years, has sold his business to Dr. Wade, of Havelock.

Dr. Moore has disposed of his practice in Horning's Mills to Dr. Wesley I. Rich, of Lindsay. Dr. Moore has gone to take a past-graduate course in Chicago.

Dr. Rooney, of Shelburne, has disposed of his practice to Dr. Moore, of Horning's Mills. Dr. Rooney has been in poor health latterly and will take a rest.

Dr. Crosby, of New York, has returned to Fergus prior to taking Mrs. Crosby and little son to British Columbia where the Doctor expects to locate.

Dr. W. A. Burr's many friends in Fergus will be pleased to learn of his success in his medical examinations in England. He left on August 1 as ship surgeon on the steamer *Orissa* from Liverpool for Valparaiso, in Chili.

Dr. A. E. Henry, formerly of Bognor, has decided to locate in Estevan. Dr. Henry is a son of the late Andrew Henry of Mono, and formerly taught school at Honeywood.

The Deer Park Sanitarium, corner Heath and Yonge streets, and the private hospital "Restholme," 2 Maple Avenue, Rosedale, are two well appointed and well conducted institutions.

Dr. Bryce McMurrich, Toronto, Hon. Secretary of Committee soliciting subscriptions towards a portrait of former Dean Walter B. Geikie, of Trinity Medical College, reports good success. The portrait when completed, will be hung in the Academy of Medicine.

Dr. Charles Kingston (Trinity University), of Grand Forks, B.C., is visiting relatives in Stirling. The Doctor is associated with Dr. Newcomb (McGill University), as Manager of the town hospital. On his trip eastward, Dr. Kingston was accompanied by Dr. Boucher, of British Columbia, who returns for a visit to his father, Dr. R. P. Boucher, Peterborough. Dr. Kingston will visit the great hospitals of our eastern cities and those of Chicago and Philadelphia before his return.

Publishers' Department

A Suggestion.—The new Glyco-Thymoline Eye Bath, which is constructed from a single piece of aluminum, has been found of exceptional service when used as a vessel to heat hypodermic solutions to the proper temperature. This little hint comes from a physician who has frequently found himself wanting just such a device. The Glyco-Thymoline people will be glad to send you one of these cups if you desire it.

Canadian Northern Ontario Railway—Change of Time.—The Fall time-table will come into effect Sept. 9th, when the Sunday night special southbound from Muskoka will be withdrawn. The express for Muskoka Lakes and Parry Sound will leave Toronto 9 a.m., connecting at Bala Park and Lake Joseph with boats for all points on Muskoka Lakes, and the southbound train will also have the same boat connections from Muskoka Lakes. Observation dining parlor cars will be operated on these trains. The local service will be very convenient, leaving Washago at 6.45 a.m. and arriving Toronto 10.10 a.m., and returning leave at 6.30 p.m. All information and time-tables at city office, corner King and Toronto Streets.

Dietetic Treatment of Constipation.—To the use of improper food, or food improperly prepared and too quickly eaten, may be traced most cases of constipation. That the present treatment of functional constipation is almost entirely dietetic and hygienic is an indication that the profession generally attributes the cause of this condition to dietetic errors.

A common error of diet is the eating of food that is too concentrated—this applies particularly to present-day bread and other food-stuffs made from white bolted flour. Modern wheat flour contains practically none of the fibre of the wheat kernel, whereas whole-wheat flour contains enough of this cellulose to stimulate normal peristaltic activity of the intestines. The flaked food, Egg-O-See, not only presents the full food value of whole-wheat but retains a sufficient portion of the cellulose to give that "physiological irritation" necessary to tone the intestinal walls to a proper exercise of their function of removing effete matter from the system. Egg-O-See, fruit and the free drinking of pure water are valuable auxiliaries in restoring these cases of constipation to a normal condition.

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The Pride of Canada.—Say what we may about "Hog-town," and hogs have most valuable uses, Canada has every reason to be proud of the Canadian National Exhibition, held annually at Toronto, and which this year will be held from Aug. 26 to Sept. 9. Not alone is some $100,000 spent yearly in premiums and diversions for the people, but in the last five or six years close upon a million dollars, including $350,000 this year, has been spent upon permanent new buildings and improvements. This surely is keeping abreast of the times and denoting the development of the country as well as the growth of the city.

General Anesthesia by the Hypodermic Method.—The rapidity with which the Abbott-Lanphear method of anesthesia has advanced in the confidence of the profession is unparalleled. The method is simple, easily used, requires less assistants in surgical operations, is acceptable to the patient, is remarkably free from danger, is devoid of after effects to a greater extent than inhalation anesthesia, is recovered from promptly and can be adjusted to nearly all patients. Its most marked influence is in the slowing of the respiration, which is apt to alarm those who have not proven that no harm results, the respiration being that of deep sleep. The use of hyoscine instead of scopolamine is a great improvement on the original method, and the introduction of this substance, by Dr. Abbott, and of cactus in the form of cactin in the compound, hyoscine, morphine and cactin comp. (H.M.C. Abbott), has added a safeguard which is invaluable, and which in time will be fully appreciated. Abbott has the confidence of the profession because he makes good. On his presentation it was promptly tried and another success is scored.

Typhoid Fever and Modern Treatment.—Good elimination should be maintained from every gland and emunctory, writes W. T. Marrs, of Peoria Heights, Ill. Every secretion should be aroused and made to do its best. Calomel in small doses is one of our best remedies. Salines are nearly always indicated. Abbott's saline laxative is pleasanter and better than crude salts. He has observed that if the bowels act not less than twice daily, the course and severity of the disease is modified. The old idea that in typhoid the bowels should be kept confined for a few days at a time is now looked upon as having been an untenable theory. The more debris and toxins are eliminated, the less will the disease be compelled to oxidize by the process of fever. The more water the patient drinks, the

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more are poisons eliminated or diluted, thus lessening their absorption. In case of hyperpyrexia, give a colonic flushing and the high temperature usually comes down a degree or two. The sulphocarbolates (W-A Intestinal Antiseptics) should be given to neutralize remaining foci of infection? Patients treated along this line seldom require the cold bath. Tepid spongings at frequent intervals usually serve a better purpose than the bath of low temperature.—*Merck's Archives.*

Antiphlogistine Versus Opium.—Inflamed states of the various organs of the body frequently give rise to pain of such urgent character as to demand active steps looking to its relief. Upon seeing the patient for the first time (he has called his physician because his suffering has become intolerable), the medical attendant is met with a peremptory demand for relief from the suffering.

With a willingness, which frequently overrides their better judgment, some physicians resort to the hypodermic needle indiscriminately, and, in too many cases, a greater evil has followed the lesser one. The free habit of using morphine or some other form of opium is not a judicious practice, and for several reasons. The exact seat of an inflammation, for instance, might become difficult to locate, and thus a clear diagnosis interfered with. But the greater objection to the use of opium is the possibility of adding a recruit to the ever growing army of habitues.

Every time there occurs to a doctor the apparent need for opium he should deliberate well before resort is had to the needle. If, after careful consideration, his best judgment advises the use of opium it should be given in some form by mouth. If the needle is used the patient at once knows what he is getting but he is not so likely to acquire this information if it be given otherwise.

For relieving the pain of the inflammations Antiphlogistine will easily take the place of opium. The relief following may not be so prompt and so complete but the edge of the suffering is taken off within a short time and soon the patient is in a comfortable condition, and has escaped the possibility of becoming addicted to a drug. There is not the likelihood that a patient, relieved from pain by it, will begin eating or using Antiphlogistine in any other way—which likelihood is the greatest disadvantage of opium.

In the future let your morphine become stale, and keep your Antiphlogistine fresh—use it in inflammation.—*The Medical Era.*

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PRESIDENT'S ADDRESS.*

By Alexander McPhedran, M.B., Toronto,

Professor of Medicine, University of Toronto.

It is my first duty, as well as pleasure, to acknowledge my deep sense of gratitude for the honor you have done me in electing me to the chief office in this Association. I have experienced the unusual courtesy of an election for a second term. The Presidency has been held by several of the ablest physicians this country has produced, and to succeed such men would be an honor to anyone. It would, however, have been in the interests of the Association, and much more in accord with my own feelings, had the By-law been observed which requires that the president be elected from the city in which the meeting is to be held. In justice to Montreal this should have been done, as then some of our difficulties would have been avoided, and such honor as pertains to the position would have been bestowed where it belongs.

However, under the circumstances it is my pleasing duty to gratefully acknowledge the cordial sympathy shown by one and all of our Montreal friends, a generous cordiality in keeping

* Delivered at the Fortieth Annual Meeting of the Canadian Medical Association, Montreal, September, 1907.

with their well-known character. I can only most sincerely thank them for their cordial good-will and co-operation. I hope it will be my privilege to welcome one of their number as President at the next meeting held in Toronto, when I hope to be able to show evidence of my appreciation of the uniform kindness that has been extended to me here. I wish further to express my great appreciation of the work of the Executive and various committees: the results are evident in the excellence of this meeting.

I may be permitted here to give expression to the deep sorrow with which every member of this Association heard of the calamity that overtook McGill University and Medical Faculty in the loss of their building last April. It is not necessary to assure them of our sympathy. The loss was not McGill's only, but was one also to medical education in this country and on this continent.

We are glad to know that the cloud had its silver lining, and that now they are rather to be congratulated on the near prospect of a magnificent new building then condoled with on the loss of the old one, good as it was. We knew that, "Phœnix-like," the institution would rise from its ashes, and be greater than ever. As we sorrowed with them so will we all now rejoice with them. We wish them "God-speed."

During the past year several members of this Association have gone "to the bourne whence no traveller returns." Among these were three of the most eminent in the Canadian profession, men of world-wide repute, to whose memory a brief reference is permissible. In this bereavement this city has to deplore the loss of Sir William Hingston and James Stewart, and Toronto, that of George A. Peters. All three had the common experience of being reared in a hard school, so that success could be attained only by living laborious days and practising the most rigid economy, conditions which often develop, as nothing else can, the best that is in a man. Each was a master in his own sphere, each possessed in an eminent degree "the genius for taking pains." Of each it may with truth be said that he was "the noblest work of God, an honest man."

Sir William Hingston was a distinguished type of the surgeon of the old school, a school in which it was essential to possess courage, decision and dexterity. Those of us who were not in close touch with his surgical work were attracted to him chiefly as the man. He was the embodiment of refined courtesy

and of frank kindliness. He was intolerant only of what was unworthy. We miss the tall, erect, courtly man whom we all loved, and among whose graces there was always such a charm. Canada, in these her yet salad and hoydenish days, can ill spare men of such culture.

James Stewart stood for all that is best in medicine. He was of such singularly quiet and unobtrusive nature that it was only those with whom he was closely associated who knew the riches of both mind and heart that lay hidden behind the simple and unassuming manner. His knowledge of medicine was deep and clear, such knowledge as comes only by living laborious days of self-sacrificing devotion to our Art.

George A. Peters was a type of the best in the modern school of surgery. Among Canadian surgeons, at least, he had no superior and few peers. Who could desire higher praise? He was a man of sterling character and rugged honesty, and fearless in his condemnation of whatever was unworthy of the highest traditions of his profession. His was a spirit that no difficulties or dangers could make quail or deviate from the path of rectitude. How vividly in recalling his career we are impressed with the truth of the aphorism of the Father of Medicine: "Art is long and time is fleeting."

I have great pleasure in drawing attention to the fact that Dr. William Bayard, of St. John, N.B., a past president of this Association, completed seventy years in the practice of medicine on the 1st day of August last, and that he is still able, at the age of 93 years, to meet the wishes of many patients by ministering to their wants. His Alma Mater, the University of Edinburgh, on this 71st anniversary of his graduation showed her appreciation of his character as a man and his work as a physician by conferring on him the degree of LL.D. The circumstance is perhaps unprecedented in modern times; it is at least so, I believe, in the annals of Canadian Medicine. Although I have already, in the name and behalf of the Association, extended to Dr. Bayard the greetings and best wishes of the Association, I would suggest that now in annual session you authorize me to telegraph the renewal of our high esteem for him and sincere hope that the "eventide" may be calm and without a cloud.

I. Reorganization.

It is just 40 years since this Association was organized. The first meeting was held in Quebec under the Presidency of Sir

Charles Tupper, one who has since attained such eminence as a statesman. It is interesting to note that this first meeting was among the largest ones held by this Association—109 being present. At the second meeting, held in this city, there were 135, after that for several years the attendance never reached 100. Even of late years, compared with this first meeting, the Association has not shown the advance either in attendance or work that its founders were entitled to anticipate. However, history has but repeated itself—the higher life, intellectual and scientific, of young countries as of individuals, is always the latest to develop. It is quite possible that to the clear vision of the Fathers of this Association it was evident that its growth would be slow and subject to many vicissitudes, that it would only be after many years of painful struggling that much advance could be hoped for. They doubtless foresaw such advance could come only after the growth of culture, that is, after the conditions of the people became stable, and sufficient wealth accumulated at least to give ease, if not luxury, to many. For various reasons such a state has been slow in maturing in this country, but it may be said to have now come, at least in the older provinces. Such has been the history of the United States, where only recently science and art have made material advance, and even yet "it is the day of small things" with them in comparison with the development of the natural resources, and the growth of wealth of that country. Our history will doubtless be similar to theirs, although the indications are that our material growth will be even more rapid in proportion to the population. It is said that, although our population is only six millions, our immigration equals now that of the United States when her population was 40,000,000. Such great accessions, we have good reason to fear, are beyond our country's powers of assimilation.

As a national Association we have to bear our part of the great responsibilities imposed upon the country by such great accessions of foreign people, and the rapid growth of its material interests. It devolves upon us, as far as possible, to promote the medical and scientific interests of this country, so that they may be kept abreast with its material development. This responsibility rests on the older provinces chiefly, as in these there is more of leisure and culture. United action on our part will be necessary to cope successfully with these responsibilities and to enable us as a profession to attain to and maintain the status in the country to which we are entitled. This

country's conditions are unusual. Its geographical extent is very great, and its population as yet occupies only its southern border, extending from ocean to ocean. Community of action as well as of interest will, consequently, be difficult to develop and maintain. It seems therefore urgent that all available means should be taken to harmonize the interests of the various parts of the country in order the more efficiently to apply our energies for the advance of general scientific and professional interests. The closer we are in touch with one another the greater should be the stimulus to do higher work, the increased zeal and enthusiasm should yield results which will enhance our reputation as a profession, and also redound to the credit of the country as a whole. Every scientific advance, however small, is an asset to the country, both in the intrinsic value of the work itself, and in the impetus it gives to further advance. It is difficult to impress laymen, even the best educated, with the importance of this truth; but that is not a matter of surprise, seeing that we ourselves are lacking not a little in appreciation of scientific achievements. This indifference to scientific and intellectual affairs is due to many causes, chief among which is the struggle for existence incident to a young country. This struggle has absorbed so much of our energy that little attention has hitherto been paid to purely scientific matters. Our training is almost wholly confined to the preparation for purely professional work, and so little research work has been done that our attention has not been seriously directed into scientific channels. The result is that thus far, with a few notable exceptions, we have been content with the discharge of the daily routine of professional duty. That such is the present status of the Canadian profession few I think will deny. The question arises—What is the duty of this Association in relation to such a state of affairs? No one can take exception to the view that, as the national organization, representing the profession of medicine, it should be the leader in all movements having for their objects the elevation of the status of the profession, and the advance of the scientific interests of the country.

In the past the Association has been satisfied with a quiet existence, content to take by the way anything that was offered, obeying in letter and spirit the injunction "to take no thought for the morrow." To many, especially of the younger men, living even at our doors, its existence is scarcely known. During the year I have asked not a few to present papers at this meeting who had almost forgotten the Association's existence,

if they ever knew of it. It is surely time to awaken out of this Rip Van Winkle state and develop the power of the Association, so that its existence shall be known to the remotest corner of this land. How can this best be done? That the present constitution of the Association is inadequate to making any serious effort in this direction all will agree, and if anything is to be accomplished there must first be such a re-organization as will enable the Association to take effective action on the many important questions that must come before it from time to time. It is only by doing so that we can fulfil the objects which, forty years ago, its founders had in view. The very existence of this Association imposes on it the duty to consider all questions of national importance. It cannot make good its claim to a national character if it evades the responsibility. While the constitution of the Association at its organization was the best that could be devised to suit the needs of the time, it is but ill-adapted to the greatly altered conditions of the present day. The time seems ripe and the need urgent for a complete reorganization in order to fit the Association to meet the growing demands incident to a growing country, and enable it to occupy its place in the medical world. Even for the continued existence of the Association it seems necessary to make radical changes in its constitution.

These are some of the motives which, at Halifax two years ago, led the Association to take the preliminary steps looking towards reorganization. A committee was appointed with instructions to consider the whole matter. Its report is ready for your consideration. The committee in its recommendations has followed closely the constitution of the British Medical Association, the oldest of all similar organizations, and of the American Medical Association, which was modelled after it and which has, during the last few years, made such rapid progress in perfecting its organization and extending its usefulness. Our numbers are too small, and we are too widely scattered across the continent to permit of our following the plan of either organization in its entirety; we must adapt an organization to our own needs. I will leave the report of the committee to speak for itself. The general scheme has been highly approved of by the Provincial Associations of Ontario, Nova Scotia and British Columbia, and by several local societies. It would have been wise to have had the scheme presented before every association and society in the country by some member of the committee.

One of the most important objects aimed at in seeking proper organization would be the effect that the existence of a vigorous association would have on general medical education. It would enable the profession to bring its opinion to bear on whatever might call for encouragement or amendment. The natural consequences would not only be an improvement in medical education, but in time a unification of the requirements for qualification in the several provinces. This should furnish a good working basis for general registration for the whole country, a movement that has been so ardently and ably promoted by our distinguished colleague, Dr. Roddick. In view of the fact that medical education in Canada is wholly under the control and in the care of the universities, such a basis for registration should be acceptable to all the provinces. There is not a medical school in the country and therefore no private interests to be considered. I am sure all will regard this as a cause for congratulation. This is the only country in the Anglo-Saxon world in which such a desirable state of things exists. The Medical Faculties of Dalhousie University in the east, Laval and McGill in Montreal, Queen's in Kingston, the University of Toronto in Toronto, the Western in London and Manitoba in Winnipeg, are all under the control of University courts. This should be a guarantee both of the excellence of the work done and of the certainty of steady advance.

If this Association were well organized, embracing in its membership the great majority of the practitioners of the country, and actuated by high ideals, it is not too much to say that, in a few years, it could bring the necessary influence to bear on these universities, and on new ones that may be established, to secure such a general minimum standard of qualification that their degrees would be a passport to legal qualification to practice medicine in any part of the country. If this plan is feasible, and it should be, it is within the "sphere of usefulness" of this Association; this is, in fact, the only organization which can successfully promote such a scheme. Such an opportunity to promote the interests of the country as well as of our profession should be sufficient, if there were no other reason, to lead to a proper organization of our forces. This course would not be in the interests of the Universities as much as in that of the country, and of this Association as representing the profession. It is much easier to regulate and guide whatever pertains to the welfare of the country in this its early stage of growth, than it will be to gain control after it has developed into a populous

country with fixed local interests. In the new western provinces there are some signs of a feeling of antagonism to the older parts becoming evident. There seems to be a fear that they may wish to dominate too greatly the policy of these newer parts. It will take wise management and judicious action to arrest the growth of that feeling and forestall any attempt that might be made to estrange the sympathy and co-operation of these newer provinces. Most of the western profession have but recently graduated from our universities, and should understand us so well that with ordinary judgment it should not be a matter of much difficulty to secure and retain their hearty co-operation in any scheme having for its object the highest interests of the whole country as well as of the whole profession. I say *country*, because we should see to it that the public recognize the fact that this and similar organizations exist for the promotion of what is for the general good as well as for the benefit of those more immediately concerned. The whole is but the sum of its constituent parts, and can be affected for good or ill only through the parts. Therefore what we, as a constituent part, do to promote our own true interests is of benefit to the country at large. It is highly desirable that the public should realize that the objects of this Association are not only to benefit the profession, but also, and chiefly, for the promotion of what is for the general good. It is not a "trades union," but a national organization which should have, and has, the nation's welfare for its chief object. It is apparent to all that the country stands in need of all the assistance which this and other agencies within its bounds can bring to its aid in its enormous responsibility of assimilating the vast numbers of peoples from all nations annually entering its domain, and of developing and maintaining a proper national spirit, marked alike by vigor and honor. That she is not coping quite successfully with the difficulties imposed upon her is a subject of common observation. Probably no country developing in population and resources with such phenomenal rapidity has ever been able to prevent, at least temporarily, some deterioration in public morals. It is almost a daily experience to hear some one remark on the decadence of the public conscience. With the large immigration from all parts of the world, and the intense striving after wealth incident to the development of a young country of such large resources it is doubtless inevitable that there will be some relaxing of the rugged honesty, private and public, of the pioneers of this country, but that there should be even a semblance of ground for the

very general charge of moral decadence is much to be deplored. As loyal Canadians we have a profound interest in this matter. Public morals cannot be degraded without affecting unfavorably all classes, so that in our own interests as well as of this land we love, to which we return from our pilgrimages year by year with an ever-increasing affection and pride, and for which if need be we would yield our heart's blood, we should be constrained by duty as well as by loyalty to use our utmost efforts to stem the downward tendency. In such an effort the Association has a part to perform; in order to perform that part effectively it will require to be furnished with every facility with which we can provide it.

Hitherto the Association has been content to minister to the wants of the general practitioner in its two sections of Medicine and Surgery, but we have reached a stage now in which it should afford facilities also for the encouragement of all classes of special work. The field of medicine is so broad as to render specializing necessary. While all should possess sound general knowledge none can be masters in more than a few branches at most. This year a first step has been taken in extending the work of the meeting by the formation of a section for laboratory work. With a more vigorous Association other sections will be necessary in order to bring out the best work in the various departments. An omnibus meeting never accomplishes much that is of the highest value. Men will not do their best work unless there is the opportunity of presenting it to such as are specially qualified to appreciate its value. While there are many questions in all specialities that the general meetings are quite able to discuss, and which should as far as possible be there presented, there are others that only those specially trained are able effectively to criticise and judge of their merits. The announcement is just made of the Eighth Medical Congress in Australasia to meet next year. It is to consist of eleven sections. With more than double their population we should be quite as capable of maintaining meetings with as many sections, in which the work presented would be of the highest order. I need not specify what additional sections should be formed. The wide-spread prevalence of contagious diseases indicates the necessity of directing ever increasing attention to sanitation. Regarding tuberculosis there is a great awakening on the part of the public, but as to typhoid fever there is still amazing apathy, both in city and country. The formation of a section of state medicine seems therefore urgent. Many other sections

might be formed with great advantage to the Association's usefulness.

Another matter demanding the prompt and earnest consideration of this Association is the nostrum evil. Our friends to the south have been waging an increasingly active crusade against this evil during the last few years, and duty to the public no less than to our own interests demands that our action be prompt and energetic. The public do not understand the matter, and have no conception of the enormous injury done to their best interests. Those among them who give serious thought to the matter hold us responsible for their education in this question. I scarcely see how we can ignore the responsibility without detriment to our own interests as well as to theirs. They will be ready, once they understand the matters, to aid in suppressing it, or mitigating it where it cannot be suppressed.

There are many other questions that might fairly claim attention, such as intemperance and the care of the inebriate, the physical training of the young, etc., and the medical inspection of schools.

The educational authorities of the United States have just issued a report stating that 12,000,000 school children, that is, one-third of the whole school population of the country, are suffering from some form of physical defect. Many of these defects are easily remedied, such as, malnutrition, defective breathing and vision, and enlarged glands. A similar condition of Canadian children doubtless exists. The nation has a vital interest in the condition, physical and mental, of its children, and it is for this Association to point out the way in which these matters should be dealt with. They are matters, however, that only a vigorous organization could, and, no doubt, would deal with in a way to command the attention and respect of the country.

II. A Journal.

The second great need of the Association is an official journal. It is essential for several reasons. In the first place the Association's constituency is a very large and sparsely settled one, and it appears necessary therefore that there should be a regular means of communication established in order to maintain a community of interest and an avenue through which the needs of all may be made known. Without such a means of communication it will be difficult to develop a truly national spirit, and unify the interests of the medical profession in Canada.

In determining on such a venture we would not be entering on untried grounds, as we have the example of the two great Anglo-Saxon associations to guide us—the British Medical Association, and the American Medical Association. Neither of these associations could possibly have attained a tithe of its present usefulness without its own journal. In fact it is doubtful if they could have continued to exist, at all events they would not have been able to wield the power and influence they now possess. I do not forget that our numbers are relatively small. Still there are over 6,000 physicians in Canada, a constituency surely large enough to maintain a monthly journal of first-class character, second to none published either on this continent or in Europe. It should be elastic enough to admit all good contributions offered. Such a journal would in a short time attract the bulk of the best work done in Canada, and would thus become a medium to which other countries could turn to learn of the scientific medical work of this country. Hitherto all the work done here has been published through British or United States channels, and has gone to the credit of these countries. We are loyal Greater Britons. We must at the same time be loyal local Britons—that is, Canadians. We cannot be truly loyal to the greater without being supremely loyal to the less, and it is by our loyalty to our own country that we can best show our devotion to that nation of which we are rightly proud of being a part.

It requires no argument to prove that, with a first-class journal, a great impetus would be given to scientific work, and that the position of Canadian medicine would be greatly improved in the estimation of the scientific world. The other sciences would also indirectly share in the benefit, because no class of scientific work can be improved without having the influence reflected upon others.

Such a journal should also be made to meet the needs of the general practitioner, the "bone and sinew" of the profession. A section could be devoted specially to their interests.

The expense has been regarded by some as an insurmountable obstacle. Australia with less than half our population has published for years a creditable monthly journal. Can we not do as well? If every member here invested a small amount in such a venture, to be paid back without interest when funds become available, say five or even ten years hence, it would be one of the best investments they ever made. Such an investment would bring an assured annual return; first, in enhancing the *esprit de*

corps and improving the tone of the Canadian profession; second, in creating in us a greater appreciation of our own work and capacity, teaching us that the home product is equal to that of any other country, a lesson we sadly need to learn; and, thirdly, in stimulating all, especially the young men, to do work of ever increasing merit, and so add to their own and the country's reputation.

In advocating the establishment of an official journal I wish it to be clearly understood that no disparagement of existing Canadian journals is intended. However excellent these journals may be, each can only serve its own locality and special clientele. It is not possible for any private journal to reach all the Canadian profession, and even if it did, its influence would be much less than that of the Association's own journal. The interests of the private journal, being local and special, should not be infringed upon by an Association journal whose work would be identified with the general interests of the profession of the whole of Canada as well as the promotion of medical science. Anything like a monopoly of the journalistic field is not desired. The aim is not only to stimulate all to do better work and to promote the interests of medical science, but also to bring all the members of the profession into closer touch with one another, so as to further the national spirit and greatly increase their influence in the country, and so enable them to bring their united influence to bear on all matters of national importance. These interests are quite apart from, and should not in any way conflict with, those of the private journals.

I am convinced that a journal is a necessity, if not to our existence at least to our success. I have full confidence in the ultimate success of our efforts, if steps are taken to establish such a journal, and that within a very few years at most we will have a journal equal in merit to the best, and in which our ablest men will be more than willing to publish their best work.

Some fear we cannot cope with the difficulties of developing and maintaining such an active organization as I have outlined, or of publishing a journal worthy of this Association and of the Canadian profession. That the difficulties will be considerable no one doubts; still these difficulties can be successfully met by the Canadian profession—a profession whose members are, it is no boast to say, physically and mentally the peers of the best in the world. A survey of this audience should be sufficient to convince any doubter, and this audience is but a fair representation of the great body of physicians scattered across this coun-

try from the Atlantic to the Pacific. Great as the difficulties will be, I have full faith in our own powers to overcome them. We need but united loyal action to attain success that will gratify ourselves as well as our friends.

Some will say that these views are chimerical, but to me they but feebly outline the possibilities which lie before us. A few years ago had any one said that this country would now be developing with the present phenomenal rapidity, that it possessed such extensive acreage for the growth of wheat and other grains, such mineral wealth, and that it could afford homes for the many millions of population which we now know it is capable of providing, his views would have been scouted as too visionary to merit serious consideration. The venerable Lord Strathcona, whose sagacity excels even his buoyant hope, and who knows this country as perhaps no one else knows it, has just been credibly reported as saying that he believed this country by the end of the current century will have a population of 80,000,000.

A recent writer, whose work is most favorably reviewed, who came from England as an immigrant and remained six or eight months traversing the country from coast to coast, mingling with the masses and working in forest and field, so as to make a thorough study of the country, says the country is quite capable of sustaining a population of 140,000,000. May we not reasonably look forward to something like a corresponding development in the literary and scientific interests of the country.

One of the most potent causes which have retarded the development of Canada in all her aspects—in population, industries, literature, science, national sentiment—has been its proximity to the Motherland, and to the strong nation to the south of us. We have been overshadowed by both, perhaps a little overawed, so that we have feared to assert our manhood. But it is to inertia rather than fear that the slow growth of national spirit is due. We have had facilities of all kinds desired close at hand in these two great countries so that we have been saved the trouble of developing our own resources. But the dawn of a new development has come, and Canada is known the world over as the "land of promise." Are we to be laggards in this national awakening? No one who knows the Canadian profession will doubt the answer.

It is for us to consider whether the profession is to be provincial or national in its character and aspirations; whether it is

to consider questions from a provincial, even a parochial point of view, or occupy a higher plane and regard matters in a broad national spirit, and so take its place and assume its responsibilities as one of the forces moulding the destinies of the nation, feeling that it has especially committed to its care the development of medical science in its highest character. It may be said that this is too high an ideal. But we should not forget that the higher the ideals, if we endeavor to attain to them, the greater will be the success. However, I cannot regard the ideal as too high, but rather that it but faintly indicates all the future holds for us if we are but equal to the demands of the present and grow with the increasing needs of rapidly growing conditions. With a united and courageous association embracing the whole profession of the country, and actuated by high ideals of our duty and of the needs of the country, I have every confidence that the results would far exceed our most sanguine anticipations. Such success, however, can be attained only by earnest united effort. "In union there is strength." To the multitude, whether the nation or association, as to the individual, true greatness comes only by unremitting toil, energy, and intelligence, directed by the highest motives and ideals. To all who so pursue their vocation, whether crowned with apparent success or not, true greatness comes in proportion to their deserts. Ours will be no exception to the universal rule.

We are citizens of a giant young country of inexhaustible resources, entering on the threshold of its greatness and power, blessed with an invigorating climate which should produce a virile race such as no country ever excelled. Such is our heritage. You know that "to whom much is given of him also shall much be required." That we *can* so meet these our responsibilities so as to fulfil the requirements I have the fullest faith; that we *will* meet them successfully remains for all, especially the younger members of the profession, by their effort and work to prove.

THE PRESENT COURSE IN ANATOMY, WITH REFERENCES TO SOME RECENT CHANGES.

By Frederick Etherington, M.D., L.R.C.P. (Edin.)
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"There is this advantage in your subject," a worker in one of the other University departments once said to me, "it does not change." While it may be true that the structure of the human body has remained practically the same for some considerable period of time, yet it is no less a fact, that the manner of description, the system of nomenclature, and the methods of teaching, have undergone extensive modification even during the last ten years.

One has only to compare the books of ten years ago with such works as Cunningham or Morris' recent editions to become impressed with the fact that the descriptions have been materially altered. This is particularly noticeable with reference to the viscera. Says Cunningham, in his excellent text-book, published in 1902, "The recent introduction of formalin as a hardening and preserving agent imposed an especially arduous duty upon the writers who had undertaken the chapters dealing with the thoracic and abdominal viscera. The possibilities of establishing a more accurate topography and improving our conception of the forms assumed by the viscera under different conditions, have by this means been greatly extended. . . . Much, therefore, which appears in this book on the topographical relationships of the viscera departs considerably from the older and more conventional descriptions hitherto in vogue." Also our knowledge of the nervous system has made marked progress. The embodiment in the later works of the results of the researches of Sherrington, Flechsig, Elliot Smith, and others, has resulted in many changes in the more recent articles dealing with this system; and the careful reader will not fail to note that even to the accounts of the bones and muscles, whose features have long been described with fair accuracy, considerable alteration has been made. In fact it can be safely said that in the past ten or fifteen years the whole subject of anatomy has undergone extensive revision.

A perusal of Morris' recently published "Treatise of Human Anatomy," or a glance through the magnificent "Atlas" of Spalteholz, will forcibly impress upon the student of ten years

ago, the great change that has taken place in the System of Anatomical Nomenclature. To find the supinator longus muscle termed the Brachio-radialis, the cuneiform bone called the os triquetum, the familiar fissure of Rolando designated the sulcus centralis, is at first quite bewildering. The introduction of the revised nomenclature (termed the BNA, Basle Anatomical Nomenclature), is a matter of importance not only to the students of anatomy, but also to the students and teachers of all subjects in which anatomical terms are used. A new generation will shortly appear using the BNA perhaps exclusively, and, unless those at work in other branches make it their business to become familiar with the changes, confusion must necessarily result. It would be outside the present purpose to enter into a discussion of this question; those interested will find a full account in L. F. Barker's little work on "Anatomical Terminology."

But it is more especially to the changes in the methods of teaching that I wish to make brief reference. Again, the improved methods of preserving the material have permitted marked advances. When subjects came to the dissecting room improperly cared for, perhaps in a state of partial decomposition, it was impossible to carry out minute and careful dissection. With the intra-vascular injection of formalin, carbolic or other preservative, the material is clean and wholesome, and can be kept so, indefinitely. Instead of the old dissecting room, filled with objectionable odors, blue with tobacco smoke, noisy and at times even hilarious, the modern anatomical laboratory is kept as clean as the surgical operating room, and the conduct of its occupants does not differ from that of the workers in any other department. And there is no good reason why the future physician and surgeon should not get the principles of cleanliness and order as well as neatness and thoroughness inculcated early in his career.

The tendency to the elimination of didactic lectures is general throughout the course of medical studies. It has come to be recognized that laboratory methods taken in conjunction with bedside work ensure the best results. The custom of lecturing has come down from a time when good books were not available. There can be small profit in listening to a lecture, often little better than an indifferent rendering of an excellent text-book article within the reach of every student. No doubt there are subjects in which the formal lecture will continue to hold its place, and many will be disposed to lean towards the view ex-

pressed by Oliver Wendell Holmes in his question and answer, "Why do men attend Universities to listen to lectures which they might read with so much less expenditure of time and money? Why have they always done so? Because no printed page has ever given or ever can give to teaching the force of words spoken by a great instructor." At any rate, no one will question the utter futility of lecturing to a class of fifty or more, on such a structure as the ethmoid bone or on the ramifications of the seventh nerve or lingual artery. Anatomy has followed the general trend, and in our own course, for instance, didactic lectures have been almost wholly abandoned. They have been crowded out by dissecting room demonstrations given to small sections of the class, and rendered unnecessary by more thorough laboratory work.

Perhaps a brief outline of the present course may be of some interest even to those who seldom open a "Gray" or rarely visit a dissecting-room. According to one of the leading anatomists of America, the teaching of anatomy on this continent can be classified under four heads. "The first and lowest order is found in those schools which give a course of crude lectures on anatomy with a dissecting room, in which the work is not directed but is carried on in a superficial way. . . . The teaching of anatomy is of a higher order when it follows closely some text-books, especially Gray, when it has lectures and recitations, and enough work in the dissecting-room to enable the students to pass the state examinations. Most of the medical students desire courses of this order. In a third and higher order of medical schools, about twenty of which may be counted, the course is given to aid the students in their subsequent medical studies. Both teachers and students work pretty hard, and at the end of the course all feel that much good has been done. . . In a fourth order of anatomical course, it is considered that there are others to be satisfied besides the teachers of a few practical branches . . . there are the teachers in the other sciences, physiology, neurology, pathology, as well as anatomy itself. A student told me recently that he had been studying one thing to help him in another all his life, and he was dead tired of it; he now desired to study those things which were worth studying for their own sake. For him anatomy could not be considered an ancillary science. In presenting a science to students no attitude can be defined, except that in which the science is studied for its own sake." It is to be premised then that our object is to give a thorough course in this fundamental subject with the view

that anatomy is worth studying "for its own sake," and not with the hope that this or that fragment of knowledge may possibly be of some use in the student's future career. Who knows, indeed, anything of the future of a first or second year medical student? He may be destined to lead the laborious and useful life of the general practitioner, he may possess in his mental make-up those qualities which are to develop into a Donald McLean or a Charles Purdy. For each a thorough foundation in anatomy is essential to the highest success. Specialization may or may not be overdone at the present time; this is a debated question, but there are few who would say that it should begin during the undergraduate period. Such a course in anatomy undoubtedly entails the expenditure of considerable time and energy on the part, both of students and of teachers, yet I doubt that the students would have it otherwise; the teachers certainly would not.

To return from this digression to an outline of the present course. Doubtless many who read this article worked under the unsatisfactory system of doing the muscles, bones and joints during the first year, adding the arteries, and nerves, and abdomen and thorax during the second year. This method was wasteful, both of material and of time. The loss of material, though no small item, was not so serious, but the loss of time was a very serious matter. No man could thoroughly dissect the whole body during his second year, and at the same time do justice to his other classes. At present the first year's work comprises only the study of upper and lower extremities. The following is a statement of the work:

(*a*) Eight lectures, giving the history of anatomy and a general outline of the whole subject.

(*b*) The study of the bones of the extremities, upper and lower.

(*c*) The complete dissection of these extremities, following closely Cunningham's "Manual of Practical Anatomy."

(*d*) Review and demonstration in the dissecting-room, twice weekly.

The introductory lectures are general in their character. A brief resumé of the history of anatomy is given, touching only on the main epochs, as those of Hippocrates, Galen and Vesalius. The nature, structure, and function of the animal cell are discussed, the different systems, osseous, muscular, nervous, vascular, are then taken up, and their main features and their relationships to each other pointed out. This gives the new student

a broad and necessarily imperfect view of the whole subject. At the same time, in another department, that of animal biology, he is engaged in the dissection of a mammal, usually the cat. This materially aids him in understanding the general body structure. Meanwhile also he has been at work on the bones of the part to which he has been assigned, either upper or lower. Before being allowed to proceed with dissection he must prove himself thoroughly familiar with the bones, as familiar as was a certain Mr. Venus, who assured his friend, Mr. Silas Wegg, "I've gone on improving myself in my knowledge of anatomy, till both by sight and by name I'm perfect. Mr. Wegg, if you was brought here loose in a bag to be articulated, I'd name your smallest bones blindfold equally with your largest, as fast as you could pick 'em out, and I'd sort 'em all, and sort your vertebræ, in a manner that would equally surprise and charm you." This intimate knowledge has many advantages; it makes him conversant with the new names that he will meet in dissection, and greatly simplifies the task of learning the origin and insertion of muscles. As Holden long since wrote, "Whoever would become a good anatomist or a skilful surgeon must make himself a master of osteology. It must be not only his first but his principal and constant study."

Having obtained some idea of the structure of the body, and having mastered the bones of his part, the student is now prepared to begin dissection. This beginning is made under constant supervision, and with what might almost be considered an undue emphasis on details. Previous notice having been given all students assigned to a subject are on hand at its arrival. The hairy parts are shaved; the hard skin is removed, and the whole body thoroughly washed and well rubbed with a solution of carbolic acid in glycerine. This not only has an antiseptic value, if such were needed, but it also renders the skin soft and prevents drying. The body is then wrapped with cheese-cloth wrung in carbolic solution, and the whole carefully bandaged. The subject is not again removed from the table until in the progress of dissection the different extremities are disarticulated.

When the work is begun such seemingly unimportant matters as the proper methods of holding a knife, or locating superficial structures, of cleaning muscles, are insisted upon. Why all this attention to detail? The answer is not far to seek. As Barker well says, "The very first dissection may be all-important as regards the subsequent dissections. He who fails in his earliest dissection to acquire the habit of working according

to a definite method seldom learns later to become an exact, quick and careful dissector. It is almost hopeless to try to make a man do exact and clean work after he has formed inaccurate and dirty habits." At different stages of the dissection he must prove to one of the demonstrators that he has gained a knowledge of the structures met with—this being known as a "preliminary grind," also on completion he must satisfy the chief demonstrator that he possesses a sound knowledge—"the final grind." If the preparation has been insufficient he is "referred" for another period of study. It is a matter of some importance to the student, both that he displays a sound knowledge and that he makes a good dissection, for records are kept of the marks made at this oral examination, and of those given for excellence of dissection. Of a total of a hundred marks, sixty are awarded for the work done during the session; the remaining forty for the final examination in the spring. This system of marking aims at doing away with the injustice of judging a year's work from an hour or two's writing, it tends to prevent cramming, it ensures high standing to those who work steadily throughout the session, and guarantees a pass to the student of average ability and industry. During this period no class-room lectures are given. Twice-a-week a demonstration with review is held in the dissecting-room on the dissections done by the class. The class sections work together, as nearly as possible all subjects are placed on the table, work is begun and positions are changed on the same dates. A student must either keep up with his class or drop out for the session, and the comparison of the different dissections forms a healthy incentive to good work.

Little need be said of the work in the second year. The same general plan is followed, which may be indicated thus:

(*a*) The study of the bones of head and trunk.

(*b*) The complete dissection of head and neck, abdomen and thorax, as given in Cunningham's "Manual."

(*c*) Twenty lectures on the "Development and Structure of the Central Nervous System."

(*d*) Special demonstrations on the organs of sense and the viscera.

(*e*) Dissecting room review, etc., twice weekly.

Those who have gone through their work in practical anatomy, having used no other book than "Gray," will hardly grasp the significance of the words, "as in Cunningham's Manual." The advantage of having a regular plan of dissection with definite instructions for carrying it out will be appre-

ciated only by those who have worked under both systems. The retention in the latest " Gray " of the directions for dissection of the muscular system alone, seems to show on the part of those responsible an unfamiliarity with present day methods.

The lectures on the central nervous system are given because of the inability to procure a sufficient number of brains to permit of individual dissection. However, fresh dissections as well as mounted preparations are always available for the purposes of reference and study.

The mention of mounted specimens leads me naturally to refer to the place of a museum in connection with the study of anatomy. Such an adjunct is a necessity, but unfortunately museums are of remarkably slow growth. In the crowded session there is little time to devote to this branch, but, thanks to the carefulness of the students and the assistance of one or two friends, we have managed to get together a few specimens, which, it is hoped, will form the nucleus of a useful collection. Really of more value than bottled specimens on the museum shelf are wet dissections available for use, that is, for handling. " Anatomy is to be learned through the fingers," some one has very well said, and to this view I readily subscribe. It is, in fact, the key to the present system of teaching. In crocks, bottles and small vats, all the viscera, the brain and preparations of every part of the body can be kept for study purposes.

The place of modeling in clay as carried out in some of the leading American colleges should here come in for discussion, but notwithstanding its many advantages, lack of time alone would prevent its present adoption. Drawing forms an essential part of courses in kindred subjects, and the wonder is that more attention has not been paid to it in the department of human anatomy. It requires no undue expenditure of time, is useful from many points of view, and will soon receive greater attention in our work.

To obtain a thorough knowledge of the structure of the adult body some attention must be given to the study of its development. For who can understand the formation of the inguinal canal, the course of a hernia, the coverings of the testis, without knowing the changes that occur in this region during the latter part of intra-uterine life; or who can comprehend the ventricular system of the brain without being first acquainted with the phenomena of its development? Or again, in the matter of the various malformations, such conditions as hare-lip, spina bifida or hypospadias, are appreciated only by those who are

familiar with the embryonic changes occurring in the respective regions. The question of development is considered in the demonstrations only where it bears directly upon and is necessary to the understanding of the normal adult structure. Clearly more attention should be paid to this important branch. (The subject of embryology is taught in the department of physiology, but only a general outline is attempted.)

Other relevant and interesting points could very properly be discussed in this paper. Lack of space permits merely a reference to such matters as the tendency towards the extension of the course along the lines of Comparative Anatomy, and the somewhat anomalous position of histology, a subject most closely related to anatomy, but retained as an appendage to physiology.

Under the stimulus of intense research new light is continually being shed upon the dark places in pathology and medicine. Under the beneficient influence of asepsis and anesthesia the number of those who practice the art of surgery, even to the performance of the major operations, is becoming increasingly great. Advance in pathology and in medicine, and proficiency in surgery must primarily depend upon a knowledge of structure.

Hence it is that anatomy has received in the past, and must continue to receive in the future, that degree of attention which its importance demands.

PLEURISY—DRUG INDICATIONS.

By W. C. Abbott, M.D., Chicago, Ill.

Clear the bowels at once and furnish the suffering tissues clean blood to sustain them in their efforts at restoration of normality. Give calomel gr. 1-6 every half hour for six doses; then a full dose of a saline laxative to flush the whole alimentary canal quickly. Quell the circulatory tumult and wide-open the emunctories by veratrine gr. 1-134 well diluted—water 1 oz.—every half hour till pulse says stop. If the stomach is irritable use aconitine amorphous instead of veratrine, same doses, either till pulse falls to 90 or skin cools off. If there is mental excitement substitute gelsemine gr. 1-250 every half hour till pulse falls to 90 or the eyelids begin to droop; then sustain effect. The pain in the side subsides under bryonin gr. 1-67 every half hour, and this also promotes absorption after the

acute stage passes. Full doses of morphine or quinine, alone or together, may abort acute forms, but there are more reliable remedies to be had. A full sweating dose of pilocarpine gr. 1-6 by hypo. will abort if used at the start, with quick catharsis and abstinence from liquids. It is essential to prevent the local hyperemia by lessening the bulk of the blood, and this demands total abstinence from food and drink. Elaterin gr. 1-6 may be used in place of pilocarpine to abort acute attacks, or as an intestinal drain to promote absorption later. In the young, with high fever, wild delirium and throbbing pulses, tartar emetic or veratrine should be rapidly pushed to full effect. After the acute stage absorption may be stimulated by mercury biniodide gr. 3-67, arsenic iodide gr. 1-67, iodoform 1-2, and phytolaccin 1-2, four times a day. The pain in the side and moderate fever are nicely controlled by asclepidin gr. 1-6 to 1-2 every hour, very nice also for children. Heat and cold to the chest do have some relieving powers, also mud poultices, but best is a bandage tight enough to restrain the motion. The absorption is aided by local applications of iodine, but the powers of the combination above advised are to be appreciated only by trial. Rapid saturation with calx sulphurata gr. 1 every half hour, is advisable, as the malady is almost always microbic. The quick multiplication of minimal doses allows absolute security from over-dosage, and nicest adjustment of means to desired end. When one has mastered the repetition of doses to effect he wonders why he so long blundered along blindly in the old way. Saturation with nuclein, up to a drachm a day, cannot but be useful, reinforcing the leucocytes and activating them in their battle for the life.

COLOCYNTHIN.

By James Burke, M.D., Manitowoc, Wis.

Colocynthin is a glucoside derived from colocynth, and is the active agent of this drug. Colocynthin is interesting in connection with a few other active principles used to neutralize the proteid toxins lodged in the walls of the stomach and intestines as a result of a period of indifferent or bad digestion, caused by a lack of quality and quantity of the digestive ferments, in failing to revert the proteid food

into the proper variety of amino-acids, capable of being synthetized into proper human protein. Such relative health of the digestive organs, resulting in the fabrication of but a minor portion of the ingested proteid food into homologous protein, leaving the greater portion of the worked up protein, as of the hybrid and heterologous variety of protein. Most of these three kinds of protein is absorbed into the general circulation, where the homologous protein is readily transmuted into human tissues, while the hybrid is mostly converted into homologous protein by a vicarious action of the blood and other tissues, but the heterologous protein is little changed by this vicarious action of the tissues, and is stored away in the tissues to await a physical, chemical or medical force to resolve it out of the tissues back into the blood and fluids, where if it meets with a satisfying chemical affinity it becomes a harmless, excretory product, and acts as a normal stimulant to some excretory organ; but if it meets a pseudo or other incomplete affinity and combines temporarily, a leucomain or proteid toxin is formed, the agent for the neutralization of which is to be found in the cognate substances—the alkaloids and most other active principles of our pharmacopeal plant drugs. These principles are active in the fluids of the body in seeking out chemical affinities, and some of them are so aggressive as to attack the integrity of some tissue to obtain a principle of a cognate substance to satisfy their chemical cravings. Colocynthin is one of the most aggressive. After its affinitive toxins in the alimentary canal are neutralized it attacks the integrity of the secreting glands of the stomach and bowels and sets up hydrogogue action of the bowels; which action has been empirically employed to relieve regional accumulations of serum from defective constitution of the blood, with consequent defective action of the kidneys; but such a therapeutic procedure is only of temporary relief of the symptom of pressure from the abnormal fluid, for the transuded serum will continue to accumulate, unless the relief interval is employed in neutralizing the leucomain in the blood and fluids, by the use of the proper alkaloid, and make of the disturbing proteid toxin a normal stimulant to kidney function. To lay the axe at the root of the matter, we may have to neutralize some liver toxins by the indicated use of podophyllin, collinsonin, dioscorein or boldine. When colocynthin is fully analyzed and its chemistry and therapeutics are better understood, a component, simpler principle of it will be classed with the group of principles whose affinitive activity modifies, temporarily, the construction and

function of nerve tissues; besides, colocynthin contains a component primary principle which, by itself, on being brought in contact with the kidney substance, excites protoplasmic action there; and if in too large quantity, by its aggressive chemical affinity for a cognate substance located in the kidney, will cause nephritis. Clinical experience teaches that colocynthin is principally useful in neutralizing the proteid toxins in the colon, and thereby it is classified as a promoter of colon digestion. In most cases of accumulation of toxins of the alimentary tract the cure of the case depends on the neutralization of toxins chemically affinitive for some component primary principle of euonymin, iridin, leptandrin, emetin, hydrastin, or juglandin. Colocynthin gr. 1-33, atropine gr. 1-250, and capsicin gr. 1-67 after each meal promotes better function of the colon, and should be limited to that therapeutic duty.

PRACTICAL DEDUCTIONS FROM AN EXPERIENCE OF EIGHT HUNDRED AND ELEVEN ABDOMINAL SECTIONS.

By A. Lapthorn Smith, B.A., M.D., M.R.C.S. (Eng.)

Surgeon-in-Chief of the Samaritan Hospital for Women; Gynecologist to the Western General Hospital; Gynecologist to the Montreal Dispensary; Consulting Gynecologist to the Women's Hospital; Fellow of the American and Italian Gynecological Societies; late Professor of Gynecology in the University of Vermont and Bishops College, Montreal.

The suggestion that I should prepare this paper was made to me by the learned editor of the *Montreal Medical Journal*. His idea was that I should put down on paper the general conclusions to which my experience in this branch of my work had led me, which he thought would be interesting to the general profession, rather than to give detailed histories and statistics of each case, which would be very tiresome. So that, when asked by the Secretary to prepare a paper, I thought that there would be no more fitting opportunity to give an account of the trust which my brethren have confided in me than at this meeting of the whole Canadian profession. So as to put my facts into a somewhat orderly shape, I have grouped my cases into about a dozen classes, each of which I will take up briefly in turn.

One of the most important groups, though not the most numerous, is that of abdominal hysterectomy, which was done either for fibroids or for cancer, for puerperal septicemia, for

pus tubes, or for broad ligament cyst. During the ten years that I was assisting my predecessor, the late Professor Trenholm, the mortality of hysterectomy under the best operators was nearly 60 per cent., and that was why Apostoli's treatment with the constant electrical current was so eagerly seized upon by the profession throughout the world. I treated one hundred and eight cases of fibroid with it without a death, and to the best of my knowledge eighty-six of them remained cured. Had the mortality of hysterectomy not been steadily falling all that time, I would still be treating them by Apostoli's method. But in the meantime Koeberle, Joseph Price, Baer and Kelly had reduced the mortality to 5 per cent., so there was no longer the same reason for dreading the operation, and I accordingly began to operate. My own mortality is now almost *nil,* owing to the plan of feeling for the pulsation of the six arteries and tying them before cutting, so that there is hardly an ounce of blood lost from the patient and only a few ounces from the tumor. Although abdominal hysterectomy is an operation which taxes the skill and endurance of an operator to the utmost, there is no operation that I would sooner be called upon to perform, under one condition, however, that it had not been neglected until complications had set in, such as malignancy, suppuration or adhesion to the bowels. Heart murmurs or albuminuria are of little importance, as in every case the latter has disappeared immediately and the former within a year. I need hardly tell you that the best time to remove a fibroid is as soon as it is discovered. Even a tumor the size of an orange can render a woman's life not worth living by reflex and other disturbances, besides which there is the danger of malignancy and suppuration in the tumor.

Hysterectomy for broad ligament cyst has completely altered the prognosis of this serious disease. If I knew that a certain tumor was a broad ligament cyst I would advise the woman to leave it there until it killed her rather than remove it in the old way, for my mortality was 100 per cent., namely two cases with two deaths. Not so if allowed to remove it by the new method of tying the three arteries on the healthy side, the same as for hysterectomy, and cutting across the cervix at the internal os, and then rolling the broad ligament cyst out of its bed, thus making it quite easy to tie the arteries on that side; the operation is completed the same as a hysterectomy. I have done eight of them by this method without a death, although one of them, Dr. Reddy's case at the Woman's Hospital, was

full of pus and blood. I no longer have the slightest dread of operating on broad ligament cysts.

Hysterectomy for Pus Tubes is a much more serious proposition, first on account of the adhesions to and perforations into the intestines, and second because of the risk of infecting the cellular tissues with the pus. I have done it rarely because the mortality is a little higher, and because I believe the uterus is useful for supporting the pelvic floor, of which it is the keystone. I prefer to remove the tubes and ovaries, and if a purulent discharge continues, to curette every year until it stops, which it always does within a couple of years at most.

Abdominal Hysterectomy for Cancer.—As my mortality by this method was so high, having lost both cases I did, I have ever since stuck to the vaginal method, which has given me a primary mortality almost *nil,* with quite a few women alive after from three to ten years. In the hands of the greatest European experts, and in selected cases, the former method has a primary mortality of 22 per cent., and ultimate mortality of nearly 60 per cent

Hysterectomy for Puerperal Septicemia.—I have done this three times. The first one, done with the serre-nœud and pins, recovered, and the next two, by supravaginal hysterectomy, died. There were chains of lymphatics full of pus running along each side of the uterus. By the serre-nœud these would have been choked off; by the method employed they had to be opened and thus infected the peritoneum.

The next is a small but interesting group, namely, *Cesarean Sections for Eclampsia and Contracted Pelvis,* to which operation for these two conditions I have become an ardent convert. If you want to save both mother and child, you must not operate on women who are dying from uremic convulsions or from injuries received with the Bossi dilators and forceps. I have performed this operation three times; once after waiting from 6 a.m. to 4 p.m. for the os to dilate, with the woman in convulsions; the child is alive and well a year later, but the mother died after three days without coming out of the coma; the second for contracted pelvis on a woman who had had two children destroyed by craniotomy, the mother making a good recovery, but the child dying from injuries from the forceps, which were tried on him for an hour before resorting to cesarean section; and the third done after moderate efforts to dilate and deliver with the forceps during two hours, during which the woman had seven severe convulsions, both mother and child

making a perfect recovery. My experience in these three cases leads me to make the deliberate statement that one hundred women with an impossible pelvis could be delivered by cesarean section, without the death of either mother or child, on the following conditions: First, that they have not been infected; second that they had not had chloral or chloroform except what was necessary for the operation; and third, that neither Bossi's dilators or forceps had been employed either before or after their getting to the hospital. I am also convinced that cesarean section is less dangerous than the heroic doses of chloral which we often hear of in the cases that die, and less dangerous than two hours of convulsions, during which the brain may be damaged beyond repair. Within the next ten years craniotomy and symphysiotomy and pubiotomy will be unheard of, while the death of a mother or child from eclampsia or placenta previa will be almost unknown.

Bladder and Ureter Cases.—These form a small but interesting group of laparotomies. Once I removed the bladder for cancer in a woman over sixty, who did well for nearly a week and then died very quickly. Twice I transplanted a ureter; once with perfect success several years ago on a woman from Vancouver, who has been in perfect health since, and once with partial success on account of the ureter pulling out a little from its attachment to the bladder. Five times I have performed cystopexy, a little operation of my own, which gives instant relief to women who have been suffering for years from bladder trouble due to falling of the bladder, which prevents it from emptying itself. The residual urine ferments and infects the fresh urine and so irritates the mucous membrane that life becomes a burden to them. Each of these women assured me that she had been completely cured by the operation. In two of the cases there was also prolapse of the uterus, so I did ventrofixation at the same time, pulling the uterus well up and attaching it to the abdominal wall above the bladder.

Kidney Cases.—Pyonephrosis, tubercular kidney, perforated ureter, kidney tumor. This was a very interesting group, as they were all done by abdominal section, and all recovered. My impression is that several of them would have died if they had been done by the lumbar incision, simply for want of room. One was done at Strong's Hospital fifteen years ago on a woman who was then sixty-five years old and who enjoyed good health almost until her death at about eighty. It was a large cyst, and the difficulties of enucleating it were so great that I put a couple

of steel pins through the stump and put on a serre-nœud, which controlled all the blood supply, and then I cut it off. She made a good recovery. The next was a tumor containing two gallons of fluid, completely filling the abdomen, and was sent to me for an ovarian cyst. This was a fortunate mistake, for it was easily delivered through the abdominal incision, although containing two gallons of purulent fluid, and over a pound weight of stones embedded in the calyces which could not easily have been extracted by the back. The stump was tied in several segments, and dropped back through the two layers of peritoneum, becoming extra-peritoneal again. She had several children afterwards without any kidney complications. Another case which was sent in as an appendicitis proved to be a pyonephrosis due to a stone blocking up the right ureter three inches from the kidney; this stone ulcerated through the ureter and allowed the urine and pus to escape into the cellular tissue behind the appendix, where it caused a large fluctuating swelling and a high temperature. On opening the abdomen over the appendix the latter was found healthy, so that incision was closed and another made higher up and further back, when over a quart of pus escaped. Then the kidney and ureter were removed, the former being distended enough to hold two quarts of pus, and a stone was found lying near the hole in the ureter. It was easily removed and the patient made a good recovery.

The tubercular kidney formed a distinct abdominal tumor, as there was a large amount of inflammatory deposit around it. It was a very difficult operation, and was just done in time, for on cutting the kidney open the tubercular disease, which had begun from the outside, had almost reached the cavity of the organ. This patient is now quite well. Another case was a rare tumor of the kidney, full of clear liquid, but having no connection with the secreting part of the organ. The operation was very difficult, owing to the large blood supply, requiring many ligatures.

Obstruction of the Bowels.—For this the abdomen was opened four times. One of them was very interesting, because a diagnosis was made by a French-Canadian colleague who insisted upon immediate operation, and the cause was quickly seen to be a fecal concretion or enterolith, the size of an egg, stuck in the small intestine. An incision of the bowel was made over it in its long axis, when it was easily removed, and the patient quickly recovered. Three others, of whom one died, owing to waiting too long, were due to adhesions of the bowel to the stump of an ovarian cyst, removed many years before, and to the

abdominal wall. The lesson this has taught me is that when there is intractable vomiting, becoming fecal, there should be no more delay, as the bowel soon becomes paralyzed and even gangrenous. In one of the cases where I delayed only two days the bowels were already soft enough to break with their own weight; however, she eventually recovered.

The Tubal Pregnancies form rather a large group, namely, thirty-eight, with two deaths. Another one was done by the vagina, but does not come within the scope of this paper. Some of these cases were operated on when they were so nearly dead that they did not require an anesthetic, and yet they recovered. Tubal pregnancy is, I believe, much more frequent than is generally supposed, and probably many of the deaths certified as heart failure and acute indigestion are really due to intra-abdominal hemorrhage, unsuspected and untreated. If the condition were more often kept in mind there would be more chance of recognizing it. Irregular menstruation, sudden pain in the side, fainting, and a weak and rapid pulse with a falling temperature, and especially a mass to be felt beside or behind the uterus would justify an immediate operation. Now and then, it is true, not a tubal pregnancy but something else almost equally as bad will be found, such as a ruptured pus tube or a perforated appendix, or a twisted ovarian cyst, all of which mistakes I have made, but we must be prepared to deal with whatever presents itself. Tubal pregnancy does not appear by chance; there is a definite reason for it. It is due to disease of the tubes; when one tube is diseased, both tubes are diseased, although one may be more so than the other, owing to the difference in blood supply. One tube may be diseased enough to cause a tubal pregnancy this year, and by next year or the year after the other one will have reached the same stage. While I do not insist upon removing the other ovary, I do think that something should be done to prevent her having a second tubal pregnancy (which may be easily effected by removing a little piece of the tube and sewing the peritoneum over it), for in two years' time that woman may be living in a town where there is no one either willing or able to diagnose tubal pregnancy, in which case she will almost surely die. A word about the two deaths. One occurred about ten days after the operation and was due to grippe, of which there was an epidemic, attacking everyone in the hospital; the other death occurred six days after the operation in a woman who had gone on to full time and was opened three days after labor began. The child, which was free in the peritoneal cavity, lived

only four hours. I do not know why she died, as her pulse and temperature were normal almost to the end, but this shows that the time to operate on a tubal pregnancy is during the first month, before rupture, when the tube is the size of a sausage.

Appendicitis.—Of these there were sixty-three cases, and the lesson they have taught me stands out in big letters, "operate early." Some of the cases had so few symptoms that I admit that I hardly felt justified in operating, but which proved on opening the abdomen to have a gangrenous and perforated appendix. As in cancer, as in tubal pregnancy, so in appendicitis, the time to operate is when you *suspect* the disease. Now and then you will be mistaken and remove an appendix which might have remained a few years longer, but, on the other hand, if you wait until you are certain, you will operate too late in a great many cases. All my four deaths were due to waiting until the diagnosis could be made more surely; two of them with black vomit and a high temperature were operated on at farm-houses in the early dawn, after an all-night journey by rail and wagon, and by the light of a coal oil lamp, and two were due to my own unwillingness to operate in the absence of urgent symptoms; and yet, with a temperature and pulse under one hundred, the appendix was perforated. Vomiting, constipation and rigidity of the right rectus with tenderness over McBurney's point, are the cardinal symptoms. Most of my cases were women, and the right tube and ovary were frequently implicated. After hearing the question thoroughly debated by the American Gynecological Society, and with my own experience, I deliberately advise removal of the appendix in every case in which the right tube and ovary are being removed for pain of long standing. It only adds about one-half of one per cent. to the danger of the operation, while it adds 50 per cent. to the chances of curing the pain. Many patients themselves have asked me to remove their appendix if I could do it without greatly increased risk, and many have been disappointed when I told them that I had not done so. Some of the latter have suffered from the same pain after removal of the right ovary and tube, and had to have a second operation for the removal of the appendix. In many of my cases the appendix was constricted near its base by bands of lymph thrown out by nature at some previous attack from which they had recovered, these previous attacks having generally been diagnosed as biliousness. Many times it was impossible to diagnose appendicitis from pus tubes, because the two diseases co-

existed. In one case the appendix was embedded in a pus tube and another in a tubal pregnancy. If the case has gone over two days, and the temperature is high and the pulse thready, I prefer to wait until the acute attack is over, for if we operate on the dying ones they will die just the same, and so will some of those who would not have died if we had operated after the acute attack was over.

Pus Tubes.—This forms a large group. They are a very dangerous and difficult class, giving the largest death rate; they also have a lower death rate if operated on after the acute stage is over; and yet their danger increases with the length of time they remain. A simple pus tube operation has twice the mortality of an ordinary laparotomy for removal of the tubes and ovaries, because we have the added danger of infection, but if it has remained a long time there will be dense adhesions to the pelvic peritoneum, to the rectum, omentum and intestines. If it has been neglected still longer there will be added the danger of perforation into the bowels, or vagina, or rectum, so that the death rate for laparotomies for pus tubes varies from 2 or 3 to twenty per cent., according to the damage to the bowels in freeing them and getting the tubes out. I have been called more than once to dying women with sinuses discharging into the vagina, rectum, and on the abdomen, but too late to think of doing anything for them. I have learned one lesson by bitter experience of these cases: not to operate on them when they come in on the train until I have had time to study their resisting power, and not to operate when this is very low. The latest term for this is a low opsonic index, but it is a new name for an old idea, which even my nurses ten years ago understood, when they telephoned me that a certain patient had arrived but in no condition for an operation. In these cases I have sometimes waited a month while everything was being used, such as sunlight, fresh air and proper food, to raise their opsonic index.

Experience has taught me that the uterus is very apt to fall back into the hollow from which the pus tubes have been dug out. During the last few years I have always added ventrofixation of the uterus in these cases. I may add that I have done ventrofixation over a hundred and fifty times, sometimes as the principal operation, but more often after removing the ovaries and tubes where there was retroversion with fixation. It gives most satisfactory results with only 2 or 3 per cent. of failures.

Tubercular Peritonitis.—My experience in these cases has taught me that when we open the abdomen and find large masses of tubercule everywhere we should simply close them up again

without touching these friable masses which bleed so furiously. In two cases I thought I could get them out, but I had to stop to avoid their dying on the table, and one died ten days, and the other three days, later. Not so with the ones that I immediately closed; these all recovered and have remained well, except a few who afterwards developed pulmonary tuberculosis. The credit for a most wonderful cure of one of these cases I must share with Dr. George Brown and his iodoform treatment. This was a girl about seventeen years old, who was sent to me with large masses felt in the vagina and a temperature of 105 every night. She was pale and emaciated, and although the temperature was killing her, I declined to operate immediately. She was placed in bed near a window where the sun poured on her all day, and was given quinine and iron and a very nourishing diet. As her opsonic index went up, her temperature came down, but it was over a month before the evening temperature touched normal. Then in the presence of eight or ten witnesses I opened the abdomen, which was studded with milliary tubercle. On introducing my hand, I felt several masses as large as an orange which, indeed, all could see, but which even the gentlest touch made to bleed. I closed her up, and a few days later asked Dr. Brown to take her in hand. He gave her a number of hypodermic injections of iodoform emulsion, and a month later she went home looking and feeling very well. She called on me four months after her operation for vaginal examination, when I was able to say positively that the large masses had absolutely disappeared. Her abdomen was quite soft, and she informed me that she had over a month before resumed her position as book-keeper in a large wholesale grocery firm. This and several other equally wonderful cases have given me great confidence in the iodoform emulsion treatment at Dr. George Brown's hands.

Cancerous and Semi-Cancerous Conditions of the Abdomen.—The cases of cancer of the ovaries, of the stomach and intestines, of which there were two or three cases each, all died, with one exception, either within a few days of the operation or a few months later, the exception being a large sarcoma of the ovary, which was seen many years after alive and well. The lesson from these stands out very clearly, "Don't wait to operate until you are *sure* that it is cancer"; when you *suspect* cancer it is already late enough and very often, alas, too late. The only hope for success in operation for cancer in the abdomen, or anywhere else, is the immediate removal of *suspicious* growths. I have consistently followed this course in the breast and uterus,

with a result that none of the former women died from the operation, and some fifteen or twenty are still alive, while not one of the many who waited until there was no room for doubt is alive to-day. I intend to follow the same course in abdominal cancer; when two or three of us suspect cancer, I will operate without delay. The semi-cancerous cases, mostly papilloma and gelatinous diseases of the peritoneum, have done very well. To remove papilloma requires great courage, for the tissue is so friable that the slightest touch causes frightful hemorrhage. By making a dash for the ovarian and uterine artery on each side of it, the bleeding is greatly lessened by the clamp, but in any case you must go on. Several of these women are alive after ten years.

Ovarian Cysts.—In my early days this used to be quite a formidable operation, and I occasionally lost one from primary or secondary hemorrhage, or from adhesions and consequent injury to the bowels. But I have not lost one for many years, simply because I have trained a number of my students and other friends to send these cases to me as soon as they are big enough to be felt, which is generally the size of a turkey egg up to a cocoanut. My teaching to them, which has proved so satisfactory to their patients, is this: Examine every sick and suffering woman, and if you feel anything which should not be there do not wait until you know what it is, but get expert advice at once; a larger experience makes the diagnosis easy for him where it may be difficult for you. The cases which these friends send me are nearly all easy, unless it may be one now and then which they have discovered in the back woods when they are on a hunting expedition. I believe that one hundred of these ovarian cysts could be removed without a death.

Umbilical, Ventral, Inguinal and Femoral Hernias.—These number about fifty, with three deaths: one because I tried to force back twenty pounds of omentum and bowels into the abdomen of a monstrously fat woman when there was no room for them; another by reducing a femoral hernia en masse when there was another unrecognized constriction beside the femoral ring; and the third was from hemorrhage from the stump of an omentum after it was put back. In large ventral hernias, when many coils of intestine are adherent to the abdominal wall, I do not attempt to dissect them off, but instead cut off the thin layer of the abdominal wall to which they adhere and drop the intestines back with their splint on them. I have done this many times, and the risk of the operation was about nil and the result

perfect; whilst to have dissected the intestines off would have injured them seriously and run up the death rate.

I cannot close without paying a tribute of gratitude on behalf of the 758 women who recovered, to one man, who by a simple suggestion has reduced the aggregate of deaths all over the world by many thousands yearly. I refer to Professor Trendelenberg, of Leipsic. By the posture known by his name the most difficult abdominal operations, especially in the pelvis, can be performed without once touching, or in many cases without even seeing, the intestine. When I think of the former days, when the bowels were chilled with alleged hot wet towels and by taking them out of the abdomen in order to make room for our work, and that even then we were unable to see where the bleeding was coming from, I never do a laparatomy without thinking of him with a lively sense of gratitude. There is one other name that should be remembered, namely, Fowler, of Brooklyn, who by recommending the semi-erect posture and drainage after septic laparatomies, and especially for gangrenous appendices with extensive peritonitis, has enabled us to save many of these desperate cases which would otherwise have been drowned in their own poison. In such cases, in women, we have only to pass a large drainage tube with many holes in it from the abdominal incision down behind the uterus and into the vagina to get perfect drainage, and even if the intestine sloughs and there is a fecal fistula, no harm will come. Three or four of my most desperate cases are alive to-day owing to Fowler's position.

To sum up in a few brief sentences:

1. Operate on tubal pregnancy as soon as the condition is suspected; I lost one of my thirty-nine cases because I was not sure and waited until full time.

2. Operate on appendicitis as soon as the condition is suspected; some of the cases which were just barely suspected proved on opening the abdomen to be gangrenous and even perforated.

3. Operate for cancer as soon as you suspect its presence; even then you will often be too late; if you wait until the diagnosis is absolutely certain you will never be in time.

4. Operate for obstruction of the bowels as soon as vomiting becomes fecal, or sooner if the condition is strongly suspected; every case would be saved if the operation were done early enough.

5. Cesarean section would save all the mothers and nearly all the children who now die from eclampsia, placenta previa and

contracted pelvis; if done early it is a much safer operation than accouchment forcé, symphysiotomy or pubiotomy.

6. Every minute of anesthesia counts against the patient's life; therefore operate as quickly as possible.

7. If the patient has been in hospital long enough to be well prepared, and by the aid of Trendelenberg posture, there will be no need to touch or even to see the intestines; taking the bowels out of the abdominal cavity adds enormously to the danger of a laparotomy.

8. We no longer lose patients from shock, which is really a mixture of prolonged anesthesia, exposure or handling of the intestines and profuse hemorrhage, for the simple reason that we avoid all these factors, especially the last, by tying all arteries before cutting them.

The lessons which my experience has taught me might also be summed up in the following don'ts:

Don't remove ovaries for dysmenorrhea until you have first tried dilatation and curetting.

Don't operate on women who have just come in on the train; every laparotomy case should be in bed in the hospital for three nights and two days before her operation.

Don't operate on enormously fat women; spend a few months in reducing their weight first.

Don't remove pus tubes from very anemic women; their resisting powers are low; spend a month in getting their blood improved.

Don't operate on patients with a high temperature unless at the very beginning of the attack.

Don't do laparotomies on women whose lungs are tubercular.

Don't remove a cancerous uterus by the abdomen if you can do it by the vagina; if too far advanced to remove by the vagina the liver and lymphatics are already saturated, and a curetting will do more good.

Don't be ashamed to back down when on opening the abdomen you find that a successful operation is impossible.

Don't keep a patient under an anesthetic much longer than an hour.

Don't lose an ounce of blood if you can save it by tying the arteries before you cut them.

Don't give more than three-quarter grain hypodermics; morphine causes pain from distension which is worse than the pain of the operation.

Physician's Library.

Third Annual Report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis has been issued. It is a volume of 410 pages and is most comprehensive on the work done between February 1st, 1905, and February 1st, 1906. It is edited by Joseph Walsh, A.M., M.D., and published by the Henry Phipps Institute, 238 Pine Street, Philadelphia.

Human Anatomy: Including Structure and Development and Practical Considerations. By THOMAS DWIGHT, M.D., LL.D., J. PLAYFAIR MCMURRICH, PH.D., CARL A. HAMANN, M.D., GEO. A. PIERSOL, M.D., Sc.D., and J. WILLIAM WHITE, M.D., PH.D., LL.D. With 1,724 illustrations, of which 1,522 are original and largely from dissections by John C. Heisler, M.D. Edited by George A. Piersol, M.D., Sc.D., Professor of Anatomy in the University of Pennsylvania. Philadelphia, London and Montreal: J. B. Lippincott Company.

This is a large and comprehensive work of 2,088 pages. When there are so many large and complete anatomies, one finds himself enquiring as to the why and the wherefore of the launching of this. It has an exceedingly competent and able staff of editors, whose names alone would be sufficient to stamp it as a work of the first magnitude. One finds that there are three chief considerations for its birth: (1) The presentation of the essential facts of anatomy, regarded in its broadest sense, by a descriptive text which, while concise, should be sufficiently comprehensive to include all that is necessary for a thorough understanding not only of the gross appearances and relations of the various parts of the human body, but also of their structure and development. (2) Adequate emphasis and explanation of the many and varied relations of anatomical details to the conditions claiming the attention of the physician and surgeon. (3) The elucidation of such text by illustrations that should portray actual dissections and preparation with fidelity and realism. It will readily be seen from 2 and 3 that something new and at the same time most essential in modern anatomy and study is attempted and well carried out. This alone will bring it into first rank with the other great anatomies and textbooks of the English language.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only $3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

Canadian Medical Association.—We cannot say that the recent meeting of the Canadian Medical Association in Montreal was the pronounced success it should have been. In many quarters one heard complaints. The programme was a good one, if we eliminate the fact that it savored too much of Montreal and Toronto. The attendance was not quite good enough for Montreal. That city could very easily have supplied the entire attendance, and at the same time left at home enough to carry on the ordinary every-day emergency work and common practice of a great city. There seems to be a feeling abroad that the ordinary general practitioner would not be appreciated if he read a paper or prepared a few case reports. This is a very serious state of affairs, as, if true, it would tend to make the Association narrow and exclusive, ultra-scientific and not practical, the very reverse of what it should be. We do not think that our city surgeons and specialists are narrow-minded or even unwilling to sit at the feet of and learn from their competent and able confreres in smaller places; but there is an ever-increasing evidence year after year that the latter assume to themselves that they are expected to take a back seat. It is most unfortunate if a man in general practice fosters this idea, and as a result hides his light under a bushel. Another great mistake is to divide a meeting of two

or three hundred into sections, to please the whims of a few specialists. The majority at our annual meetings come to hear everything along the line of practice. Many are keenly disappointed—even the man himself who reads a paper—to find in a section an audience of barely a baker's dozen. It takes numbers and keen debate to make most sessions interesting. We express our profound doubt if the meetings of the Canadian Medical Association are attended well enough to divide into three or even two sections. Now that the new Constitution provides for the exclusion of all business matters from the general sessions and their reference to a separate business body, we may hope that matters will proceed better regulated and better executed.

The Nominating Committee of the Canadian Medical Association brought in the following report, which was adopted: Place of meeting in 1908, Ottawa; President, Dr. F. Montizambert, Ottawa; General Secretary, Dr. George Elliott, Toronto; Treasurer, Dr. H. Beaumont Small, Ottawa; Executive Council, Drs. R. W. Powell, E. B. Echlin and Thos. Gibson, Ottawa. Vice-Presidents—P.E.I., Dr. Alex. McNeil, Summerside; Nova Scotia, M. A. Curry, Halifax; New Brunswick, J. D. Ross, Florenceville; Quebec, Frank R. England, Montreal; Ontario, W. H. B. Aikins, Toronto; Manitoba, Harvey Smith, Winnipeg; Saskatchewan, J. W. Kemp, Indian Head; Alberta, R. D. Sanson, Calgary; British Columbia, J. M. Pearson, Vancouver. Local Secretaries—Prince Edward Island, R. D. McLaughlin, Morell; Nova Scotia, R. E. Mathers, Halifax; New Brunswick, J. V. Anglin, St. John; Quebec, A. H. Gordon, Montreal; Ontario, Wm. Hackney, Ottawa; Manitoba, Gordon Bell, Winnipeg; Saskatchewan, R. J. Kee, Esterhazy; Alberta, — Dow, Calgary; British Columbia, R. Eden Walker, New Westminster. Dr. James Third, Kingston, was the Chairman of the Nominating Committee.

Canadian Medical Association—Resolution on Cerebro-spinal Meningitis.—The following resolution, originating in the Medical Section at the recent meeting in Montreal and handed on to the general session, was unanimously adopted: In view of the fact that recent experimental work and clinical research point strongly to the conclusion that the contagium of cerebro-spinal meningitis may be conveyed from the infected to all coming within their immediate neighborhood by the medium of the

nasal and pharyngeal secretions, the members of the Canadian Medical Association assembled in Montreal at their annual meeting, Sept. 11th, 12th and 13th, 1907, desire to impress upon the provincial and local boards of health that isolation in this disease is imperative, and would advise the notification of all cases and the adoption of the necessary measures of individual and general disinfection as in other contagious diseases.

Canadian Medical Association and Public Health. — The Canadian Medical Association at its recent annual meeting in Montreal re-affirmed the original resolution calling for a Dominion Department of Public Health, the continuance of the Special Committee appointed at Halifax two years ago, with the addition thereto of those physicians, members of Parliament, who were members of the Canadian Medical Association.

Journal and Publication Committee—Canadian Medical Association.—The President appointed the following Committee on Journal and Publication: Dr. Andrew Macphail, Montreal; Dr. John McCrae, Montreal; Dr. O. M. Jones, Victoria, B.C.; Dr. Murray Maclaren, St. John, N.B.; Dr. F. N. G. Starr, Toronto, and Dr. W. A. Young, Toronto.

Canadian Medical Association—General Secretary's Report. —The attendance was small at our last annual meeting, in Toronto, the 20th of August, 1906, just seventy-nine inscribing their names on the Treasurer's Register. The reason for this is well known to you all. Two signed from Prince Edward Island; one from Nova Scotia; nine from New Brunswick; eleven from Quebec; forty-four from Ontario; two from Manitoba; one from Saskatchewan; one from Alberta; three from British Columbia; two from England; one from Scotland, and two from the United States.

Early in 1907, owing to having been transferred to Ottawa, Dr. G. Carleton Jones, Director-General of the Army Medical Service, resigned the Vice-Presidency for Nova Scotia; and the President was pleased to appoint in his place Dr. George M. Campbell, of Halifax.

The President appointed the following Special Committee on Reform of the Inebriate:

Dr. R. B. Nevitt, Toronto (Convener).

Dr. William Oldright, Toronto.

Dr. R. A. Reeve, Toronto.
Dr. A. J. Johnson, Toronto.
Dr. W. S. Harrison, Toronto.
Dr. John Noble, Toronto.
Dr. G. B. Smith, Toronto.
Dr. J. F. W. Ross, Toronto.

And the following Special Committee on the establishment of an official journal, as ordered by special motion:

Mr. I. H. Cameron, LL.D., Toronto (Convener); Dr. F. N. G. Starr, Secretary, Toronto; Dr. W. J. DeRome, Montreal; Dr. Fernand Monod, Montreal; Dr. Andrew Macphail, Montreal; Dr. John McCrae, Montreal; Dr. E. P. Lachapelle, Montreal; Dr. Herbieux, Montreal; Dr. J. D. Page, Quebec; Dr. John Stewart, Halifax, N.S.; Dr. Murray Maclaren, St. John, N.B.; Dr. Prevost, Ottawa, Ont.; Dr. James Third, Kingston; Dr. J. R. Jones, Winnipeg; Dr. G. A. Charlton, Regina; Dr. H. A. McCallum, London, Ont.; Dr. W. D. Ferris, Edmonton, Alta.; Dr. S. J. Tunstall, Vancouver, B.C.; Dr. J. D. Lafferty, Calgary; Dr. D. J. Gibb Wishart, Toronto; Dr. Ingersoll Olmsted, Hamilton; Dr. T. K. Holmes, Chatham, Ont.; Dr. Geo. McDonald, Brandon, Man.; Dr. Kemp, Indian Head; Dr. O. M. Jones, Victoria; Dr. Courtney, Ottawa; Dr. McNeill, Charlottetown.

At the annual meeting of the British Columbia Medical Association, held in Victoria on the 1st and 2nd of August, the following resolution was passed and ordered transmitted to the Canadian Medical Association:

Whereas, It is morally incumbent upon every medical man to protect the public against disease and sickness as far as possible; and

Whereas, The so-called patent medicines are sold without restriction throughout this province, thereby constituting a menace to the public health; and

Whereas, Proprietary medicines, the composition of which are not known, are prescribed by regular physicians to a certain extent;

Therefore be it resolved, That the British Columbia Medical Association place itself on record as being in favor of the enactment of suitable laws for the protection of the public against patent medicines; and

Resolved, That it appoint a committee whose duty it shall be to institute such measures, or support them if introduced, by the Legislature; and

Resolved, That it strongly disapprove of the unscientific and possibly dangerous practice of prescribing the secret proprietary medicines; and

Resolved, That the British Columbia Medical Council be requested to communicate with all physicians of the province, drawing their attention to the undesirability of prescribing these secret proprietary medicines.

The British Columbia Association asks that the Canadian Medical Association co-operate with them in getting the Dominion Government to take action in this matter.

From the Winnipeg Medico-Chirurgical Society a communication has been received, embodying the following resolution:

Resolved, That this Society approve of the establishment of a Canadian medical journal by the Canadian Medical Association.

From the Ontario Medical Association a communication has also been received approving of the object sought in the proposed re-organization of this Association, and expressing the conviction that in the re-organization the essential connecting link between the members of the profession in each province and the Canadian Medical Association, should be the provincial association.

According to instructions received at the last meeting, copies of the report of the Special Committee on Re-Organization were sent to the medical journals of Canada and to each member of the Association.

All of which is respectfully submitted.

News Items.

Dr. R. L. Stewart, of Bluevale, left recently for the West, where he will locate.

Dr. D. A. Evans, of Lisle, has sold his practice to Dr. Rawson Harris, late of London, Eng.

Dr. Martin, of Dundalk, arrived home recently from a three months' visit to the Old Country.

Dr. Llewellyn Oliver, of Barrie, is dead. He was born in Cornwall, Eng., seventy-five years ago.

Drs. Buck and McCrimmon, of Palermo, have dissolved a long standing partnership, the latter retiring.

Dr. Agnew, of Clinton, left recently for the West, where he will for some time continue the practice of his profession.

Dr. J. S. Smith, of Dornoch, was elected High Court Physician at the recent annual meeting of the I. O. F. at Midland.

Dr. G. C. Richardson, of Hazeldean, has been appointed sheriff of Carleton County, to succeed Dr. Sweatland, deceased.

Dr. F. E. Rogers, of Littleton, Col., formerly of Brighton, left recently for England and Germany, to take a special course in medicine.

Dr. Davies, Cayuga, it is said, is negotiating with Welland property owners with a view towards establishing a private hospital in Welland.

Dr. Tom C. Gilday, of Moss Park, sailed recently per SS. *Canada* from Montreal to take up special studies in London. He will be away two years.

Dr. Hamilton, of Belgrave, left recently for a six weeks' course in Mayo Bros.' surgery, Rochester, also a trip to Chicago for post-graduate course. Dr. Boyer, of the Sick Children's Hospital, Toronto, will take charge of Dr. Hamilton's practice until his return.

Dr. J. H. Elliott, for nine years in charge of the Muskoka Cottage Sanatorium at Gravenhurst, Ont., begs leave to announce to the profession that he has taken residence at 611 Spadina Avenue, Toronto, and will devote his attention to diseases of the chest and tuberculosis.

Publishers' Department

THE sale of a medical practice is an important matter when the interests of the vendor are considered. The utmost care must be used to prevent patients knowing the vendor's intention, and the offer should only be presented to very probable buyers who are morally and legally bound to secrecy, and to not offer opposition if a sale is not made. These features are embodied in the method adopted by the Canadian Medical Exchange conducted by Dr. Hamill, and every effort made to consummate a sale with a maximum of speed and a minimum of publicity.

H-M-C AND A HAPPY DELIVERY.—A few days ago I was called to see a case of obstetrics. The lady was a primipara, twenty-four years old, was anemic, dropsical, with a very bad heart. She began having pains on Sunday forenoon, and I was called Monday morning. She was having pains at intervals of five minutes, but the os did not dilate. During the day and up to ten o'clock the pains grew stronger, were very severe, with but little dilation of os; patient almost exhausted. I gave one half-size H-M-C (Abbott) at 10 p.m. She was sleeping thirty minutes after, and was delivered of a fine boy at 2 a.m. Complained some during the last three or four pains. I was delighted and so was the patient.—J. H. Hammond, Enigma, Ga.

THE GREATEST OF ANESTHETICS.—We are living in an age of advancement in medicine as well as in all departments of life, and he who does not hustle to-day will wake up to-morrow morning looking into space and wondering where his neighbors are who were with him yesterday. I have been very much interested in Dr. Abbott's recently discovered hypnotic anesthetic, *i.e.*, hyoscine, morphine and cactin comp. I have used it in a number of operative cases, with very satisfactory results. The anesthesia was perfect, except in two cases where, in addition, I used a very small amount of chloroform, which completed the anesthesia. I had none of the post-operative nausea which we so much dread following other anesthetics. In one case of weak

heart, where I could not use chloroform, the heart's action seemed to improve while under the influence of this hyoscine, morphine and cactin anesthetic. For about two years prior to using the H-M-C anesthetic I had been using hyoscine and morphine as a hypnotic and analgesic, with such excellent results that I felt that I was not properly equipped without hyoscine

The Antiphlogistine Exhibit, Canadian Medical Association, Montreal, September 11-13, 1907.

and morphine tablets in my hypodermatic case, but had never thought of its ever becoming an anesthetic. I feel that the medical fraternity is under great obligations to Dr. Abbott for the discovery and careful preparation of this much-needed and greatest of anesthetics, that is proving such a boon to suffering humanity.—C. C. Cochran, Jacksonville, Ill.

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Cardiac "Wabble": From Vasomotor Instability.—The inclined-to-criticize will kindly excuse the above. In no plainer language, even if inelegant, can we designate that well-known but peculiar functional state of the circulation due to instability of action of the vasomotors (lack of physiological balance) that calls for cactus grandiflorus, or cactin, its most desirable preparation.

The indication for cactin is not the pulse telling of cardiac inefficiency and calling for digitalin; neither, to the careful clinician, does it call for "the lash"—strychnine, though one or the other, often both, are not infrequently used when not needed by those who do not clearly appreciate the condition present.

It is just the cactin pulse, indicating a heart that, by reason of instability or outside disturbance, is not doing, or is not permitted to do, its normal amount of work—a weak, irregular heart, calling for neither digitalin nor strychnine but a remedy that will act as a governor, restoring its normal ryhthm and rate.

Whether the indication be a pulse which is too fast, or too slow, too weak or too strong; if the cause is vasomotor instability, as in the tobacco heart, the heart of the drunkard, some cases of menopause, overwork, etc., no remedy in the proper condition will do just what cactin will; no remedy will so quickly restore the necessary equilibrium as this; continued as required in "dose enough," no remedy will serve you better.

The mistake the unthinking make is to look for toxic effect consequent upon the use of cactin as follows the exhibition of decided doses of digitalis and strychnine, and they are therefore disappointed when even enormous doses of it are used. The laboratory man with his frogs, rats, cats and dogs, says this toxic effect isn't there—and it isn't.

A straight line can't be made straighter, and while vascular balance is produced by cactin, and in a state of disequilibrium it goes but little beyond this point, why should it be carried further if it could? What more does one want?

Cactin is a balancer, and it is this peculiar balancing action upon the circulation, preventing regional dilation, that accounts for the wonderful and otherwise inexplicable effect of hyoscine, morphine and cactin compound (H-M-C, Abbott) as compared with hyoscine and morphine alone.

Without doubt in seven out of every ten times that digitalin and strychnine are used by the less careful, painstaking and exact, the needs of the patient and the purpose of the physician would be better served by cactin. Balance having been established

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ADDRESS IN SURGERY.*

By Ingersoll Olmsted, M.D., Hamilton, Ont.

Mr. President and Gentlemen,—The honor of being chosen to deliver the address in Surgery at the meeting of this Association is one I had not expected. After looking over the names of the distinguished gentlemen who have filled this honorable position, I feel any words of mine quite inadequate to express my gratitude to you, and it is with mingled feelings of pleasure and anxiety that I attempt to speak of the advances which surgery has made during the last few years. Not having had the extensive clinical experience of many of the gentlemen who have addressed you in the last few years, I shall only attempt to draw your attention to some of the most important work which has been done in different countries.

In surgery especially, has the English speaking people contributed more than their share of good work, and America particularly, should be proud to be favored by the visits of distinguished surgeons from abroad.

Great advances have been made in the surgical treatment of diseases, yet in many instances our hopes have not been realized. Thus when the tetanus bacillus was isolated and a serum prepared, it was thought a treatment had been found that would ward off the usual fatal termination of this disease. This has

* Read before the Fortieth Annual Meeting of the Canadian Medical Association, Montreal, September. 1907.

now been found to be erroneous, and, in fact, the use of anti-tetanic serum has almost been abandoned in the treatment of cases of tetanus. Fortunately, however, the serum is almost a certain preventative of the disease. Thus, in 1903, in the United States, there were 406 cases of tetanus reported, following accidents received during the Fourth of July. In the present year, only 73 cases were reported. This marked improvement is attributed to more careful treatment of the wounds, and the administration of the antitoxin. In a recent discussion of this disease before the Surgical Society of Paris, Berger stated that during the last seven years all patients, with one exception, entering his wards with wounds in which there was a possible infection with the tetanus bacillus, received a small dose of anti-tetanic serum. The one patient who had not received the serum was the only one that developed tetanus.

It is now the rule in many hospitals in America, to give the serum in all cases having wounds which could have become soiled by dirt, manure, or other foreign substance. The serum should be repeated, as a single dose will not always prevent the disease. Suter and James Bell have each reported a case where tetanus developed forty-seven days after a single prophylactic dose of the serum had been given.

Although hemophilia is a comparatively rare condition, it comes to our attention at times in a very realistic manner. It is very disagreeable for a surgeon to be called to operate on some acute surgical condition, when the patient is affected with this interesting blood state. The use of calcium chloride and sub-cutaneous injections of gelatine, although at times very useful, fail to check the copious oozing in subjects of this disease.

Hemophlia is presented in two distinct etiological conditions, first accidental, and second hereditary. In the accidental variety there is no history of heredity, or injury, or previous serious disease. Its course is more or less benign, and occurs at less frequent intervals, and requires a more serious injury for its production. In the hereditary variety, on the contrary, the tendency to hemorrhage follows the slightest wound, owing to the fact that coagulation is very much retarded. Emile Weil has shown that fresh human or animal serum introduced into the system of patients affected with hemophilia produces a marked increased coagulability of the blood in the hereditary variety, and in the accidental variety the coagulation becomes normal. This followed the intravenous injection of 20 cubic centimeters of animal blood serum. The change in the blood occurs about

twenty-four hours after the introduction of the serum. Locally the serum has much the same action.

It appears that in the accidental form of hemophilia there is an absence or diminution of the ferment which causes coagulation, while in the hereditary form there seems to be some anti-coagulating substance. If the antidiphtheritic serum be used, and this is the most easily obtained, it should be fresh. Numerous observers have confirmed the beneficial effects of this method of treatment, and it certainly should be given a trial. If the serum be given subcutaneously 20 or 30 c. cm. should be used.

With our present methods, the brain may be examined with comparative safety, yet there is still much to be desired. The unfortunate results which have formerly followed cerebral hemorrhage in the newborn, can, by the intermusculo-temporal operation, be frequently relieved. In most of these cases the labor is protracted, and the child is asphyxiated as a rule when born. Even the most desperate cases should be given a chance. There are usually localizing symptoms, yet one should not hesitate to open both sides of the skull if necessary. This is also indicated in fracture of the base. Undoubtedly many cases have died from compression, which would have been saved had the skull been opened. The convalescence is much quicker, and the recovery better. I can recall several cases of fracture of the base with extensive hemorrhage that were relieved by this means.

In case of papillary œdema due to cerebral compression, a decompression operation will ward off the symptoms. In one case operated on for Dr. Osborne, the sight, which was rapidly failing, made rapid improvement after the operation. An early interference is necessary in order to forestall atrophic changes in the nerve, and a large sized disk should be removed.

For severe cases of tic douloureaux, the evulsion of the sensory root of the Gasserian ganglion removes the pain, and leaves no bad after effects. Cushing has operated on 54 cases of this disease with only two deaths. This operation is simpler than removing the ganglion, and the results are really better. Where the attacks of pain are not so severe, Charles H. Mayo exposes the nerves at the points of exit from the foramina, extracts them by slow evulsion, cuts them off, and then plugs the bony openings by driving in small silver nails. This is an operation devoid of danger and easy to perform.

The injection of 70 per cent. alcohol into the nerves is also very effectual in many cases of intractable neuralgia. In spasmodic tic, the facial nerve may be resected and anastomosed with

the spinal accessory. The result in a case I saw, which Cushing had operated on, was extremely satisfactory.

Since operations on the thyroid have become frequent during the last few years, attention has been drawn to the importance of the parathyroid bodies. Although these structures were first accurately described by Sandstroom in 1800, their function remained a secret for many years. It was then found that when these bodies were removed a true tetany developed, which led often to a fatal termination. These parathyroid bodies are often difficult to distinguish during the removal of the thyroid, being situated usually where the thyroid vessels enter the gland. They get their blood supply apparently from the thyroid vessels, and hence, if a complete thyroidectomy be made, the main trunk of the vessel should not be ligated, but rather the branches as they enter the gland. Halsted usually leaves the upper pole of the thyroid where the superior thyroid enters. One of the dangers of this procedure is the liability of secondary hemorrhage. Dr. Charles H. Mayo leaves the posterior capsule of the gland, believing by this procedure that the parathyroids will be uninjured. Halsted, who has had an unfortunate experience in one of his cases, does not think that Mayo's procedure will preserve the integrity of these important bodies. He has successfully transplanted parathyroids in the spleen of a dog, and also into the opposite half of the gland. Von Eiselberg had two cases of grave tetany following thyroidectomy during the past four years, and in both cases the administration of the dry parathyroids successfully relieved the condition. In one case of tetany of long standing, he transplanted into the abdominal wall, a parathyroid gland taken from a patient operated on for goitre. The result was very good indeed, as the tetanic symptoms were very much improved. The rectus muscle and spleen are eminently suitable structures for such transplantation.

If only one-half of the gland be removed, together with the isthmus, the destruction of the parathyroids on this side of the body will not influence the health of the patient, yet in this operation I believe these bodies should be preserved if possible, otherwise it would be dangerous to operate later on the other half, a condition, however, which fortunately seldom occurs. Partial thyriodectomy has been very successful in the treatment of exophthalmic goitre or Graves' disease, yet it is an operation difficult of execution, and quite dangerous.

The treatment of the gland with X-rays for some weeks before operation, will, it is said, toughen the tissues, thereby

lessening the danger of hemorrhage, and perhaps also that of acute thyroidism. This latter danger, is, I believe, the greater of the two, and for this reason the gland should be freely exposed before attempting its removal, and free drainage should be provided.

The treatment of essential epilepsy by resection of the cervical sympathetics has not been attended by sufficient success to warrant the belief that much amelioration will result from it. The reports of cases operated on vary so much, that one unconsciously feels that the reporters in many cases, are not unbiased. In the cases that have been followed for years after the operation, a return of the attacks has been the rule, just in fact, what one would expect where the procedure is lacking in the pathogenic basis.

The excellent experimental work of Carroll has given rise to great advances in surgery of the arteries and veins. Many investigators have now been able to transplant kidneys, thyroids, etc., and it is difficult to say to what extent these experiments may benefit the human being. Arteries are now sutured when injured, and it is found that they heal quite readily. In January, 1903, I closed a small transverse wound of the femoral artery with fine silk sutures, and it healed perfectly, with apparently no thrombus, as the tibials pulsated normally afterwards. The patient, a farmer, lived for about two and a half years, doing his ordinary work, and died from a lightning stroke.

The improved method of treating aneurism by opening the sack, removing the fibrin and clots, closing the vessel openings by sutures, and then obliterating the sack, is now generally employed by surgeons. The sacciform aneurism may be cured by this, the Matas operation, without destroying the usefulness of the vessel. In fusiform aneurism, Halsted has devised a silver band with which he contracts the lumen of the vessel, without completely cutting off the circulation. His experience with this method has been encouraging.

For many years, only the simplest operations were attempted in the thoracic cavity. Now, however, if there is a wound of the heart or lungs, the injured part is exposed and the wound sutured.

We have learned that these tissues heal readily, provided that there be no infection, or infection of a mild grade only. During the last few years numerous cases have been reported where the heart has been successfully sutured, and indeed in many of these cases the patient was in a very dangerous state before the operation.

With Sauerbruch's pneumatic chamber the chest may be opened without shock due to collapse of the lung, and I believe the time is not far distant when every well regulated hospital will be provided with a special room for operating on lung cases. Even at the present time many cases of gangrene and abscess of the lung are cured by an early operation. It is difficult to distinguish between abscess and gangrene of the lung, yet for all practical purposes the diagnosis is unimportant as the treatment is the same in both conditions. The main point is to open early, before extensive changes have taken place. If one waits until the abscess wall becomes very thick, with infiltration and induration of the surrounding parts, or where, through aspiration, other parts of the lung become involved, the prognosis is not nearly so good. An X-ray examination will aid very much in the localization of the disease. The aspirating needle is a dangerous instrument in such cases, as its employment subjects the patient to increased risks of infection.

In the early operation, simple thorough drainage will usually be followed by recovery, otherwise, free resection of the ribs becomes necessary. Where a fistula is left after an abscess has been drained, the lung may be resected. Even the whole lobe has been successfully removed, with cure of the patient. When Sauerbruch's chamber is not available, the careful application of sutures which attach the pulmonary to the parietal pleura should be made. Where further security be desired, and the condition of the patient permits, a weak iodoform gauze tampon may be applied to the pleura, and allowed to remain for one or two days before opening the diseased focus.

An interesting point in connection with the anesthetic, is, that it is only needed at the beginning and end of the operation, as the lung and pulmonary pleura are not sensitive to pain.

Diseases of the stomach and duodenum have been discussed so much during the last few years, that it seems superfluous to say anything about them, yet many of the cases of cancer come too late for a radical operation. Hoffman in an analysis of 665 cases received in the Mikulicz clinic, found that the patients were referred to the surgeon on an average of 10.3 months after the beginning of the disease, and usually they were treated by the physician three months before surgical aid was sought. This should not be. Unless an early diagnosis be made, the result must be unsatisfactory. Take a middle-aged patient with good previous history, or history of old digestive derangements, who begins to complain of stomach trouble, which is not relieved by

the usual remedies, an exploratory incision should be made, and if a suspicious growth be found, a radical operation should be done. A palpable tumor cannot be felt often where the growth has advanced to such an extent that a radical operation is impossible. Frequently, when all of the enlarged hardened lymphatic glands cannot be removed, the operation should still be performed, since in many cases, these enlarged glands are not carcinomatous.

In careful hands the results are very good, and as a rule, the shock is not great. The general practitioner must realize the gravity of these cases, and the necessity of consulting a surgeon before the symptoms are so marked that the diagnosis is evident. The successes of Kocher, Kronelein, von Mikulicz, Terrier, Hartman, Robson, Mayo, Armstrong, and many others, warrant, yes, I may say, demand an operation. When a small tumor is felt in a breast, the patient is almost invariably referred to a surgeon for advice, and why should a doubtful stomach case be left until a positive diagnosis be made?

There are some points in connection with surgery of the stomach, in which the surgeons are not in unison. It appears to me wise to excise an indurated ulcus, for in these cases, a small cicatrix as left by an excision will give less chance for the subsequent development of carcinoma. In one case operated on several years ago by the Y method, there was a return of the symptoms, with hemorrhage three years after the operation. The stomach was not enlarged, hence it may be deduced that the anastomotic opening remained sufficiently patent for its purpose. In a second case operated on for perforated gastric ulcer, the ulcer was inverted. About two years later this patient also had some return of his symptoms. In cases where I excised the ulcer, there has been no return of symptoms. Where a gastro-enterostomy is required in greatly debilitated patients, local anesthesia will, I believe, greatly increase the chances of recovery. Four of my cases of cancer were bed-ridden, and were much emaciated; excision was impossible. A posterior gastro-enterostomy was done under cocaine infiltration, all recovered, and gained flesh.

Hemorrhage from the stomach occasionally occurs after appendicitis. This seems to indicate that toxines formed in the appendix reach the stomach and cause glandular degeneration with perhaps the formation of an ulcer. Where there is catarrhal appendicitis hyperchlorydria is frequently present; and

thus, when an operation is being undertaken for gastric ulcer, the appendix should be examined if possible.

The treatment of disease of the gall bladder is now on a firm basis, and as time goes on I feel sure that we will meet with fewer cases of common duct stones, for the cases will be operated on before the stones get into the common duct, though, of course, there will be some cases where the stones form in the hepatic or common duct.

In cirrhosis of the liver the Thalm operation has been found of great value. In at least 50 per cent. of cases operated on, the symptoms are either entirely relieved, or markedly improved. With a mortality of 35 per cent., great judgment should be shown in the selection of the patients. If this be done, the death rate will undoubtedly be diminished. I believe it is wiser not to employ drainage, as the danger of infection is thereby lessened. Where it is necessary to excise portions of the liver for neoplasms, the hemorrhage is usually effectually checked by sutures of catgut carefully applied with large blunt needles. Only the largest vessels need be ligated. The liver heals quickly.

During the last year exception has been taken by many of the English surgeons to the removal of an apparently normal appendix during an abdominal operation, and I was amused to see opposite views expressed on this point by the Editors of the London *Lancet* and the Edinburgh *Medical Journal*. I agree with the Scot, and would be very much disappointed if a surgeon closed my abdomen without removing the appendix. That some of the Germans favor this view may be gathered from an article of Pankow's, who in referring to the work of Kronig's clinic, says, "Wir bei unseren operationen die appendektomie nicht nur für erlaubt, sondern auch für geboten halten." Of course the appendix is useful in cases of mucous and ulcerative colitis. When brought through the abdominal wall it provides an excellent means of irrigating the colon. I have used it also as a safety valve in a case of obstruction of the transverse colon due to a band where the caecum and ascending colon were tremendously distended.

A number of cases of chronic sigmoiditis causing symptoms of obstruction, and closely resembling carcinoma, have been reported. Mayo considers his cases due to an acquired diverticulitis.

Last spring I operated on a case of acute obstruction due to an acute streptococcic infection of a segment of the sigmoid. An

excision of the part with an end to end anastomosis six weeks later, gave a perfect result. This case is, as far as I can find, unique. There have been eight cases of phlegmonous enteritis reported, but none of phlegmonous colitis that I can find in the literature.

NEURASTHENIA.*

By S. H. McCoy, M.D., St. Catharines, Ont.

Mr. President and Gentlemen,—Perhaps the most widespread trouble we as medical men have to deal with to-day is neurasthenia, entering, as it does, into the homes of the rich and poor, attacking male and female alike, adults, and often children.

If we accept as a definition of neurasthenia what is conveyed to our mind by looking to its derivation, we shall find that it covers a much wider field than that accepted to-day when we use the word.

There are many neurasthenic symptoms appearing as forerunners to more serious maladies, such as melancholia, insanity and disseminated sclerosis; yet we would be wrong in saying that the patient was suffering from neurasthenia.

The term, as accepted to-day, merely means a lowering of nerve potential. The neurons of the nervous system are incapable of being used to the capacity for which they were originally constructed.

It does not mean that there exists organic change in the nervous system, the presence of which causes simulation of neurasthenia for a certain period of time.

The pathology of neurasthenia is largely speculative, but if one looks to the construction of a neuron, and how one such neuron is continuous with a succeeding one only by arborization of the terminal endings of the axis-cylinder around the dendrites, he can see many ways by which lack of power to conduct impulses can be brought about.

A neuron is endowed originally with a certain percentage of power, not only for conductivity, but also for assimilation of its own food.

If from any cause whatever the cell potential is used up

*Read at Ontario Medical Association, in Toronto, May, 1907.

faster than it is made, it is only a matter of time till the neuron becomes bankrupt, necessitating a cessation of call on its energy so as to enable it to save up for the next inevitable expenditure.

According to the constitution of the nervous system, all conduction is along a neuron or concatenation of neurons in one direction, one set being centrifugal and the other centripetal, calling the cerebrum and cord the centre.

A neuron is made up of a nerve cell with its nucleus and nucleolus. From one end of the cell extends the axis-cylinder, and from the other a number of branched branches called dendrons. The terminal ending of the axis-cylinder arborizes around the dendrons of the succeeding neuron. If the protoplasm of the neuron is lacking in normal quality, or the intercellular substance existing at the synapses is below normal, it is not hard to imagine the conductivity from one neuron to another to be impeded. It is taken as true that an exhausted neuron is an irritable one, yet if the neuron is in an exhausted condition the part first affected should be the terminal fibres; as one sees in a dying or starved tree, the ends of the limbs are first affected. The conductivity may be affected by an increased separation at the synapses or by deterioration in the terminal fibres of the neuron.

Now, if we apply this to what we call neurasthenia, we can explain many of the symptoms which become classical.

By your permission I should like to compare the nervous system to an electrical apparatus composed of a dynamo—connected by wire with two junctions in it to a motor. The motor is capable of calling automatically on the dynamo for a fixed quantity of power per hour. Also the dynamo has material for so many units of energy per day.

So long as the connections are good in the wires there will be no loss of energy, but if these joints become corroded, the supply of energy from the coal or fuel running the dynamo shall run out sooner, and yet the motor itself only received its fixed quantity. The extra amount was lost in jumping the corroded connections.

So with the synopses in an exhausted neuron, not only running to musculature, causing early tiredness, but also in association fibres in the brain producing that irritability of temper so classic in this trouble. This is especially seen in a neurasthenic who, having his mind centred on some work, is suddenly called to direct his energies to something foreign to what he is at. He is almost sure to show irritability, and as his power of inhibition is weakened he may give vent to language more emphatic than

elegant. He feels inhibition would be an effort, so he allows the sail to go with the wind rather than tip the boat.

The symptoms of neurasthenia are many, but there are a few cardinal ones which must be looked for. I shall divide them into: 1. Psychical. 2. Physical.

The psychical symptoms are depression at times, but never without hope. The patient may visit one medical man after another, but he does so to be reassured in his hopeful aspect, and he takes the diagnosis and treatment given him in a straightforward way. He has no fixed idea in his mind regarding his trouble, as we find in hypochondriasis.

Also, one of the first symptoms of this trouble is a tendency to procrastination in one never before guilty of this.

Then there is inability to concentrate the mind long on one subject.

Memory fails.

These are easily explained, since memory is nothing more than that produced by association of ideas, and when the association fibres are exhausted it is not to be wondered at if memory comes slowly. This also affects judgment, since the latter is aided so by memory.

I know a mining broker, who has suffered from neurasthenia more or less five years, and he told me that he has not got one dollar ahead since it began, having made the bulk of his money previous to that time. His judgment is not so good, nor is his grip and power of determination to put into force what his better judgment may tell him.

The power of inhibition being low, explains the ease with which these patients weep; however, this temporary depression is soon followed by hope.

The physical symptoms are:

1. Early fatigue on exertion. As it takes an expenditure of nerve energy to produce muscle contraction, and constant expenditure to keep up muscle tonus, one sees why in nerve exhaustion the musculature should give out early. This fact lays before us clearly one of the great necessities in treatment, viz., muscle rest.

2. Possible loss of flesh—even to a point simulating a hidden malignancy. This is caused by exhaustion extending to the trophic nerves. I have seen flesh leave a patient as fast in neurasthenia as by tuberculosis or malignant disease.

3. Vaso-motor disturbances. This is sometimes well marked. The face and hands may be so flushed that one would imagine the

patient had hyperpyrexia, and yet the legs and feet be quite cold. One hand may be hot and the other one cold. One side of face may be blushing while the opposite may be normal. There seems to be lack of co-ordination in the vaso-motor centre. This also gives us a clue as to the reason for the weakness which accompanies digestive disturbances in neurasthenics.

4. Digestive disturbances. So many of these patients suffer from flatulence, both gastric and intestinal. As the digestive system is a drain on nerve energy, we may rather look for disturbances in that domain in neurasthena, especally if co-ordination is not perfect in the vaso-motor centre.

Constipation, of course, naturally follows, with the tired feeling increased by absorption of CO_2 from bacterial digestion of cellulose.

With the upset digestive tract in neurasthenia we have a vicious circle formed, at each revolution of which the patient is further down the hill.

5. Exhausted nervous system shows itself often in an irritability of the cord, or nerves leaving the cord.

It is common to find two spinous processes in regions of 1st and 2nd lumbar, or in mid dorsal regions, tender to pressure. Pain or numbness may radiate out from the spine, down one or both arms, perhaps down the legs; but the most common location is up the occipital region from back of neck. The patient feels relief on pressing the hand against the back of head. Numbness and tingling in finger may be present. Also, frequently there is present increased patellar reflex and a fine tremor of the fingers on extension of arm and fingers.

Etiology.—A. Predisposing. 1. Heredity. 2. Anything causing constant, excessive expenditure of energy. 3. Alimentary.

B. Exciting. 1. Shock. (*a*) Railway. (*b*) Bereavement. (*c*) Post-operative, with long convalescence. 2. Excessive strain at any one time.

1. Heredity. There is no doubt that high-tension dispositions may be inherited, and such a one is very prone to run into neurasthenia if overworked.

2. Prolonged overwork with anxiety will use up the nerve reserve, producing the trouble.

Nature is at all times trying to compensate for overdrafts made on her bank account, and she is like our every-day bank managers in this respect, that she does not tell us always in audible terms that we are nearing the end of our reserve, until

some day we make an overdraft. And then there is a great fuss. We are immediately put out of business, and politely told that we cannot resume business until we get a working reserve.

3. The constant drain on the nerve reserve in managing an upset digestive apparatus is also a predisposing factor to neurasthenia. There seems to be a constant connection between neurasthenia and a distended viscus, stomach or bowel, so much so, that I do not know of a cured case of neurasthenia who continued to have distended alimentary tract.

Exciting causes. 1. Shock. By railway accident, bereavement or surgical operation, it is possible to have an almost complete explosion of nervous reserve, leaving at one fell swoop the patient bankrupt. It seems to be caused at such times by conscious or unconscious inhibition under trying circumstances.

2. Sudden excessive strain in overwork may be the last straw that broke the camel's back, and leave the patient without nervous reserve.

Referring to post-operative neurasthenia, how often after an apparently simple operation the surgeon has advised the patient to take a stay in the country, and keep in the open, after which he would be all right,—only to find at the end of some weeks that he is as weak as ever. These cases often take a year or more to recover.

In completing a diagnosis of neurasthenia there are four other conditions which must be kept in mind, viz., hysteria, hypochondriasis, melancholia, insanity. In all of these troubles we may find some neurasthenia present, either all through course or as a prodromal symptom, but if there is evidence of the presence of any of the above, we must hesitate before calling the ailment neurasthenia, and give it the name in accordance with the real derangement.

In hysteria we have an inopportune inhibition of some higher centre over lower ones. It is a qualitative interference, whereas in neurasthenia any interference to proper action of lower centres is quantitative, due to exhaustion of nerve force.

If in a patient we find this ataxy of the higher centres instead of slow action due to exhaustion, we should relegate it to the domain of hysteria more than neurasthenia. It is true that neurasthenia in such a patient would predispose to hysterical manifestations, but would not initiate them.

An hysterical patient is very prone to suggestion, and also one capable of severe nerve strain under certain circumstances; not so with the neurasthenic, who cannot stand long strain, very

slow to repair, and who may easily be put beyond possibility of repair. Sharply defined spaces of loss of memory are characteristic more of hysteria than of neurasthenia.

In hypochondriasis I have touched on one cardinal distinction, viz., a fixed idea of their own trouble, whether or not it is compatible with their symptoms. If under argument they are made to admit they are wrong, they merely shift their position, only to take up another equally foolish and to them impregnable. They exaggerate all their symptoms, and may in time even become insane, and end their trouble in insanity. I do not mean to say that hypochondriasis is always a step towards insanity. Self-seclusion is a symptom of hypochondriasis, melancholia or insanity, rather than neurasthenia.

In a neurasthenic with constant melancholia, the prognosis for early recovery is bad. Morbid ideas are fixed and primary..

In insanity, the patient may not be alive thoroughly to his condition, and prolonged rest may merely be followed by exacerbation of some untoward symptom, which is the opposite to that found in neurasthenia. The latter is only too alive to his exhausted condition, and rest always ameliorates his symptoms.

The prognosis in neurasthenia depends on the ability of the patient to carry out thorough and rational treatment. Also any accompanying conditions of the body, such as dyspepsia, anemia, sluggish condition of intestinal tract, etc.

It is a question whether a patient who has lost almost completely his nerve reserve ever regains it completely. He seems to fall down comparatively easily, when an extra draft is made on his nervous energy, and becomes for a second or third time a nervous bankrupt.

Treatment.—To sum this up in as short a space as possible, we treat the nerve bankrupt in the same relative way that we do a financal bankrupt who is anxious to regain his credit in the bank, viz., cut off all controllable nerve expense and live on the minimum amount, laying by the rest as a reserve fund. Now, what are controllable expenses?

As it takes an amount of nerve energy to run the musculature and keep up the necessary tonus, this expense can be reduced by putting the patient in the horizontal position and keeping him there. By the judicious use of massage he is enabled to remain in bed with impunity for a protracted period and handle a large amount of nourishment.

Let me express my disapproval of the extravagant way that so many ladies use that therapeutic agent, massage. They im-

agine that, after severe physical and mental exertion, to which they may have been stimulated, they can be materially aided by an hour's massage on retiring at night. In reality they are burning their candles at both ends.

With very few exceptions massage should not be given in long treatments to neurasthenics, unless such person be kept in bed and it is used to take the place of exercise.

Indigestion, with the subsequent distension of the stomach or intestines, or both, is another source of nerve expenditure. As nature is constantly trying to compensate for deficient performance of function, and as a distended viscus is a weak one, one can see where there must be an extra drain on the nerve force to carry on digestion under such circumstances. Hence necessity for a diet that will be least apt to form gas and still be very nourishing. As cellulose is the substance most apt to form gas, its avoidance in early treatment of neurasthenia with flatulence is imperative. Its digestion is largely bacterial in the bowel, and it is split up into CO_2 and methane. The former is absorbed and eliminated via the lungs, and the latter remains, distending the intestine until passed by rectum.

In these cases with flatulency, avoidance of fruit and vegetables is soon followed by diminution of gas.

The carbohydrates are supplied by well-cooked whole-wheat bread made from flour in a very fine state of pulverization. I find that coarse bread does not always answer well, and that if wheat be stone ground and bolted, we get a flour very finely ground, and still entire wheat. The rest of the diet may consist of beefsteak, mutton, lamb, fowl, bacon, eggs, fresh fish, milk, custards.

Perhaps the first thing to be done is separation of the patient from the environment which surrounded him when the trouble supervened. By constant association of ideas with surroundings the patient is unconsciously using up nerve energy, which is obviated by removal to a strange environment. This is very important, even in the less severe cases which may not have to be confined to bed for any length of time.

After treatment of this sort has been established for a time, and the patient has improved, an ocean trip may materially assist a cure. I do not advocate travelling for sight-seeing, but merely to go some place to sit down figuratively speaking.

Before a patient gives up with nervous prostration, they have been living at high tension for some time, and as soon as they

cease working or change their surroundings to a quiet one, relaxation immediately sets in, and they feel for ten days or two weeks to be getting daily weaker. After a time they remain *in statu quo*, and then begin to gain. This reserve, however, is slow to accumulate, and a small overdraft may undo weeks of convalescence.

Discussion.

Dr. Howland described a new symptom found in many cases of neurasthenia with motor symptoms, as paraplegia.

Ataxia simulating tabes may be present, and while the condition is due in that disease to the loss of the sense of position, in neurasthenia it is probably due to the consciousness of the weakness of control over the legs, due to the nervous asthenia. In both conditions, on examination of the limbs, the muscles will be found strongly contracted, so as to hold the limbs firm at the joints.

By showing the patient this fact, in neurasthenia, and at times in tabes, the gait may be *at the time* greatly improved by evidencing the correct method of using the limbs.

Dr. John Hunter (Toronto).—In many neurasthenics the function of respiration is carried on very feebly. Instruct these patients to fix the shoulders, relax abdominal muscles, and practise deep inspiration and prolonged expiration. Tell him to use his watch and count the number of seconds to which he can extend both acts. It amuses him to find how soon he can increase the time of each act from eight or ten seconds up to forty or fifty seconds. The increased amount of oxygen taken into the blood is of great value. The prolonged expiratory act removes waste products from the system.

Dr. D. H. Arnott.—This disease is of such widespread character that no member need offer any apology for presenting his ideas concerning it. I think, in fact, we owe it to each other to give our individual experiences, so that in the possession of many points of view we may have a better idea of the trouble generally.

When a so-called neurasthenic presents digestive symptoms, we ought to be sure that a chronic appendicitis does not exist. While the patient was strong this was not of sufficient consequence to need operation, maybe; but when once broken in health and presenting digestive disturbance, the removal of the appendix is often needed to ensure recovery.

The biggest task, and the most exhausting, you can give a neurasthenic is to throw upon him the responsibility of the con-

duct of his own case. To tell him he only has overworked himself and should go away, have a complete change and rest, and he will get well, is a very cruel and mistaken advice. You should assure him he can get well, and from day to day you should take interest enough in each case to visit frequently, assure him, if possible, that his case is progressing satisfactorily, and that you hold yourself responsible for the successful conduct and outcome of the treatment.

One point in the treatment, and an esential one, is that of sufficient sleep. I use bromides, if necessary, for a few weeks, and as a result I find the patients sleep, and that tension so commonly seen has been broken.

Dr. Mitchell congratulated Dr. McCoy on his excellent paper, and particularly on placing neurasthenia on a definite basis, so that it does not cover everything pertaining to a nervous case.

The importance of the psychic treatment, letting your patient thoroughly understand that there was definite cause for their many symptoms, and that they were certainly ill. He spoke of the importance of rest. In treatment he recommended wet packs, either hot or cold, to assist in removing the toxines, and also to promote sleep, as insomnia is a prominent symptom; careful diet, and massage as indicated by the symptoms. Change of scene is useful, but patient must be kept under the personal supervision of a physician, and never allowed to depend upon himself. The doctor must think and direct for the patient in everything.

Dr. Burson.—This is a definite disease, characterized by diminution of nervous energy and subsequent nervous irritability. It is a very important point for us to see that neurasthenia is as much a disease as pneumonia or gonorrhea. I am afraid that I cannot agree with Dr. McCoy on his theory of the pathology of neurasthenia. It is not a lack of power conductivity of the neurons, but a lack of nervous energy. The condition may be compared to a system of steam heating, where the pressure of steam is very low, but the pipe or conveying organs are intact.

A very interesting symptom which was not mentioned in the paper is fear of bodily diseases, or a causeless fear, such as a fear of open places, etc.

With regard to the treatment, Dr. McCoy has covered thoroughly the physical treatment of the malady, but I regret that he has not said anything about the psychical treatment. This psycho-therapy is very important, and the physician who hopes to treat the neurasthenic successfully must pay particular atten-

tion to this branch of the treatment. The usual advice to the neurasthenic, "You are all right, go to work, take plenty of exercise," is not the proper way to deal with these patients. The neurasthenic is a sick man, and he knows it, in spite of whatever the doctor may say to the contrary. The physician who listens to his tale and tells him that he has a definite malady, which he believes can be cured, gives him mental support during his time of trouble and does much toward the successful treatment of the disease.

Dr. Oldright.—In connection with the etiology of neurasthenia, I would refer to the practice of our young people going to so-called evening parties and remaining at them until one or two o'clock in the morning, instead of getting their needed sleep, and this even when the next day's work has to be done as usual. The increased worry and mental strain of our business men, the multiplication of appliances such as the "ticker," telegraph and telephone, are also responsible, as well as the speculative tendencies of the day. When such men come for "nerve tonics," if these are given to tide them temporarily over a pressure period, it should be with the understanding that as soon as possible they must reduce the work and tension, and not whip up the willing horse with a nerve tonic indefinitely and leave no reserve to fall back upon. Insanitary habits in other respects, such as ill-ventilated rooms, errors in diet and eating, etc., contributed to the injury of the neurons as well as other parts of the organism. The speaker would like to ask the reader of the paper whether it was better to make a habit of going to bed regularly at the same hour, even if a somewhat late hour, or to be irregular, by going to bed sometimes an hour or two earlier than at others.

Dr. McCoy.—In answer to Dr. Oldright's question I should say that sleep in this condition should be taken whenever it can, even in the daytime. A patient should never put off sleep in daytime in hope that they may get it at night. After a time sleep may come more regularly, as nerve energy accumulates. In health, regularity in sleep is essential, as is that of all other functions.

A SIMPLE STAINING METHOD FOR THE GONOCOCCUS.

By J. G. Fitzgerald, M.D., and E. H. Young, M.D., Toronto
From the Laboratory of the Toronto Asylum

Preliminary Note.—The method here suggested has been found very useful, and because of its simplicity it must appeal to the busy practitioner, by whom so many laboratory procedures are difficult of performance and require the expenditure of no inconsiderable amount of time.

The gonococcus is stained by any aniline basic dye and is declorized by Gram's method. These facts are taken advantage of by the advocates of the common method of staining where Bismarck brown is used to differentiate the gonococcus.

Our method is simply the application of Nissl's soapy methylene blue solution without any counterstain—the solution is made up as follows:

Methylene Blue B. Patent	3.75
Venetian Soap	1.75
Distilled Water	1000

The smears, which should be made on slides (and care must be taken to have them *as thin as possible*), are fixed in the air and then stained (without heating) for one minute with Nissl's, washed, blotted and are ready for examination with the oil-immersion lens.

The objections to the method are that there is no counterstain, and other pyogenic cocci may be mistaken for the gonococcus. We feel that if the smears are thin so that individual pus cells can be carefully studied this objection will lose weight. The other objection, that any ordinary methylene blue solution would do as well, we have not found to be the case.

For many years Nissl's stain has been a popular differential cell stain in the preparation of tissue of the central nervous system, and although it is unreliable at times for permanent preparations, its value in the study of sections that are examined at once is of undoubted value, and we have found it is of equal value as a simple laboratory method for the study of gonococcus.

Proceedings of Societies.

CANADIAN MEDICAL ASSOCIATION—THE NEW CONSTITUTION AND BY-LAWS AS ADOPTED AT THE MONTREAL MEETING, SEPTEMBER 11th TO 13th, 1907.

Article I. Title.

This society shall be known as the Canadian Medical Association.

Article II. Objects.

The objects for which the Association is established are the promotion of the medical and allied sciences, and the maintenance of the honor and the interests of the medical profession by the aid of all or any of the following:

(*a*) Periodical meetings of the members of the Association, and of the medical profession generally, in different parts of the country.

(*b*) By the publication of such information as may be thought desirable in the form of a periodical journal which shall be the Journal of the Association.

(*c*) By the occasional publication of transactions or other papers.

(*d*) By the grant of sums of money out of the funds of the Association for the promotion of the medical and allied sciences in such manner as may from time to time be determined.

(*e*) And such other lawful things as are incidental or conducive to the attainment of the above objects.

Article III. Membership.

The Association shall be composed of ordinary and honorary members. Ordinary members must be: (*a*) Regularly qualified medical practitioners, who do not subscribe to any special dogma; (*b*) Those engaged in teaching or research work in medicine or the allied sciences, in some province of the Dominion of Canada. Honorary members must be persons who have distinguished themselves and risen to pre-eminence in medicine, the allied sciences, in literature or in statesmanship.

Article IV. Affiliated Societies or Associations and Branch Associations.

All Provincial, Inter-Provincial Medical Associations or Societies, at present existing in the Dominion of Canada, or

which hereafter may be organized in the Dominion of Canada, may, by special resolution of said Medical Society or Association, become branches of or affiliated with the Canadian Medical Association, by subscribing to its Constitution, By-laws, Code of Ethics, and by securing the approval of the Executive Council. Where such organization does not exist, inter-provincial societies or individuals may unite directly with the Canadian Medical Association, until such provincial or inter-provincial associations or societies are formed and affiliate when their membership will be continued only through such local organization.

ARTICLE V. EXECUTIVE COUNCIL.

The Executive Council shall be the business body of this Association. It shall consist of delegates elected by the affiliated societies, associations or branches, by the Provincial Medical Councils and by the Canadian Medical Association as hereinafter provided for in the By-laws. It shall elect by ballot all the officers for the Association, except the President, Vice-Presidents and Local Secretaries, and transact all the general business of the Association. The President, Vice-Presidents, General Secretary and Treasurer shall be members of the Executive Council.

ARTICLE VI. SECTIONS.

Sections may be provided for by the Executive Council, or as hereinafter provided for in the By-laws.

ARTICLE VII. MEETINGS.

The meetings of the Association shall be held annually, at such time and place as may be determined by the Executive Council, the branch or affiliated organization within whose boundaries the meeting is to take place withdrawing its regular meeting and holding simply an executive session, such session to be held at the same time and place as the meeting of the Canadian Medical Association.

ARTICLE VIII. OFFICERS.

Sec. 1.—The offices of General Secretary and Treasurer may be held by one and the same person.

Sec. 2.—These officers, excepting the President, shall be elected annually by the Executive Council to serve for one year or until their successors are elected and installed in office.

Sec. 3.—The Treasurer shall give a bond to the Finance

Committee for the safe-keeping of all funds in his possession and for their proper use and disposal.

Article IX. Finance Committee.

The Executive Council shall annually appoint five of its members as a Finance Committee, which shall also be a Publishing Committee, and whose duties will hereinafter be provided for in the By-laws.

Article X. Funds.

Funds for the purposes of the Association shall be raised by an equal annual assessment upon each Ordinary member; from the Association's publications, and in any other manner approved of by the Finance Committee. These funds, from whatever source derived, are to be transferred to the Treasurer, by him deposited in some responsible banking institution, and only paid out by him on the order of the General Secretary and the Finance Committee, through its chairman.

Article XI. Amendments.

No amendments to any of the foregoing articles or sections thereof shall be made, unless due notice has been given in writing to the General Secretary at least one month before the annual meeting. Any such notice of motion must be laid by that officer before the Executive Council and sanctioned by a three-fourths vote of that body present and voting before it is submitted to the Association.

BY-LAWS.

Article I. Membership.

Section I. Membership. How Obtained.

A member in good standing of an affiliated medical society or association may become a member of the Canadian Medical Association by presenting to the General Secretary: (1) A certificate of membership in good standing in an affiliated or branch society or association, signed by the president and secretary thereof; (2) Written application for membership on the approved form; (3) Payment of the annual subscription. In the absence of membership in a local association or branch a candidate may be elected to membership by the Council on the nomination of two members from personal knowledge.

Section II. Membership. How Retained.

So long as a member conforms to the By-laws of the Canadian Medical Association, he retains his membership therein.

Any member who fails to conform to the By-laws and whose subscription shall not have been paid on or before the 31st December of the current Association year shall, without prejudice to his liability to the Association, be suspended from all privileges of membership, and at the end of the succeeding year, if the arrears be still unpaid, he shall, *ipso facto*, cease to be a member. No member shall (except in case of his death or expulsion or of his ceasing to be a member under the previous provisions of this article) cease to be a member without having given previous notice, in writing on or before the 1st December in the current year to the Secretary of the Association, of his intention in that behalf, and having paid all arrears of subscription (if any) due by him.

Section III. Membership. How Restored.

Any delinquent member having once failed to comply with the sections of this article, unless absent from the country, shall have his name erased from the Register of Members of the Canadian Medical Association, and shall not be restored to membership until all such dues, as may be determined by the Executive Council, have been paid, and satisfactory evidence produced that he retains his membership in an affiliated society or association, if admitted through such channel.

Article II. Registration of Members.

No member shall take part in the proceedings of the Association, nor in the proceedings of any of the sections thereof until he has properly registered his name and paid his annual dues for that and previous years.

Article III. Guests and Visitors.

Sec. 1.—Medical practitioners residing outside of Canada and other men of science of good standing may be received by invitation of the Canadian Medical Association, the Executive Council, the President, or any one of the sections or at the discretion of any of these on a letter of introduction from an absent member of the Association. They may, after proper introduction, be allowed to participate in the discussions of a purely scientific nature.

Sec. 2.—Medical students may be admitted to either the general meetings or to the meetings of any of the sections thereof, but shall not be allowed to take part in any of the proceedings. They shall be vouched for as such students by some member of the Association to either the General Secretary or Treasurer.

Article IV. Honorary Members.

Honorary members shall be elected unanimously by the Executive Council.

Article V. Association Year.

The Association year shall be the Calendar.

EXECUTIVE COUNCIL.

Article I.

Qualifications for Representatives on Executive Council.

Sec. 1.—No one shall serve as a member of the Executive Council who has not been a member of the Canadian Medical Association for at least two years.

Sec. 2.—Members of the Executive Council shall be elected for one year.

Sec. 3.—Every Branch, affiliated Society, or Association shall be entitled to elect in addition to its President, who becomes an *ex-officio* member, one delegate to serve on the Executive Council for its membership from fifteen to fifty; two delegates for its membership from fifty-one to one hundred and fifty; three delegates for its membership from one hundred and fifty-one to three hundred; and thereafter one delegate for every three hundred of a membership above three hundred; provided that no one delegate shall represent more than one affiliated society or association to which he may belong.

Sec. 4.—At the first general session of each and every annual meeeting of the Canadian Medical Association, fifteen members thereof, who shall be present at that annual meeting, shall be elected by ballot to act on the Executive Council for one year: provided that any one already elected a delegate by an affiliated society or association shall not be at that meeting elected a member of the Executive Council. The President of the Association shall name three tellers to conduct this ballot. The fifteen having the greatest number of votes shall be declared elected.

Sec. 5.—Every three years the Executive Council shall appoint a committee of five to examine the registers of membership of all affiliated societies or associations and so apportion the number of delegates entitled to be elected by each society.

Sec. 6.—Every delegate from an affiliated society or association shall be required, before acting on the Executive Council, to have entered his name on the Annual Register of The Canadian Medical Association, paid his annual subscription to the Association and deposited a certificate with the General Secretary of the Association, duly signed by the President and Secretary of the affiliated society or association, from which he has been elected a delegate.

Article II. Order of Business.

Sec. 1.—The following shall be the order of business in the Executive Council, which can only be changed or departed from by an unanimous vote of that body:

I. Calling the meeting to order by the President.
II. Reading the minutes of the previous session.
III. Reports of officers.
IV. Reports of Committees.
V. Unfinished business.
VI. New business.

Sec. 2.—The Rules of Order which govern the proceedings of the House of Commons of Canada shall be the guide for conducting the sessions of the Executive Council.

Sec. 3.—Ten members of the Executive Council shall constitute a quorum for the transaction of business.

Sec. 4.—It shall be the privilege of chairmen of Committees and members of the Executive Council, to report to the Executive Council, and they shall have the right to discuss their own reports.

Article III. Meetings of the Executive Council.

Sec. 1.—The meetings of the Executive Council shall be held on the dates of the annual meeting of the Canadian Medical Association, but not until after the first general meeting of the Association, and then not at the time of any general meeting of the Association, and shall report at each business session.

Sec. 2.—The Executive Council shall elect its own Chairman, annually, from amongst its members. He shall be eligible for re-election.

Sec. 3.—Special meetings of the Executive Council shall be called by the Chairman of Council, upon a written requisition, stating the objects of such meetings, and signed by twenty members of the Executive Council.

ARTICLE IV. NOMINATIONS, ELECTIONS AND INSTALLATION OF OFFICERS.

Sec. 1.—(*a*) The general officers of the Association shall be a President, a Vice-President, and a Local Secretary, for each of the Provinces of the Dominion of Canada, who shall be the Presidents and Secretaries of the provincial organizations; a General Secretary and a Treasurer. The President shall be nominated by the Council and elected by the Association in General Session.

(*b*) Nominations. Any five members of the Association may hand to the General Secretary, in writing, the name of any member of the Association whom they may wish to nominate for any office, except in the case of the Finance Committee, which shall, in all cases, be elected by and from the members of the Executive Council, or any member of the Executive Council may nominate any member of the Association for any office.

Sec. 2.—(*a*) The President of the Provincial Association, within whose boundaries the Canadian Medical Association is to be held, shall be *ex-officio* 1st Vice-President of the Canadian Medical Association; and the Executive Council shall elect annually the General Secretary and the Treasurer. These officers shall serve for one year or until such time as their successors are elected and installed in office.

(*b*) All elections shall be by ballot and a majority of the votes cast shall be necessary to elect a candidate. Should there be more than two nominees for any position, the one having the lowest number of votes shall be dropped and a new ballot proceeded with. This procedure shall be continued until one of the nominees receives a majority of all votes cast, when he shall be declared elected.

Sec. 3.—The election of officers shall take place at any meeting of the Executive Council, and the exact time for same shall be fixed by the Executive Council.

Sec. 4.—The President shall appoint three tellers to conduct the ballot.

Sec. 5.—The Executive Council shall annually decide on the number of general addresses to be given at the succeeding annual meeting and shall elect the readers to deliver same. In default

thereof on the part of the Executive Council, this duty shall be discharged by the President.

Sec. 6.—Installation. The President-elect shall be installed by the retiring President, at the first general session of the annual meeting of the Association succeeding the one at which he was elected.

OFFICERS AND COMMITTEES.

Article I. Duties of Officers.

Sec. 1.—President. The President shall preside at general meetings of the Association and at meetings of the Executive Council. He shall deliver the annual Presidential Address at either the first or second general session of the annual meeting, held under his presidency, as he may decide. In the absence of the President, the Vice-President for the Province in which the meeting is held shall perform the duties, or, in his absence, the meeting shall select a Vice-President. The President shall appoint annually a Committee of Arrangements consisting of five members who shall reside in the place at which the Association is to hold its annual meeting. He shall also name the Chairman of this Committee.

Sec. 2.—The President shall be an *ex-officio* member of all committees.

Sec. 3.—In case of the death or resignation of the President the Vice-President for the Province in which the annual meeting is to be held, shall become the President.

Article II. Vice-Presidents.

The Vice-Presidents shall assist the President in the discharge of his duties at his request.

Article III. General Secretary.

Sec. 1.—The General Secretary shall also be the Secretary of the Executive Council of the Association. He shall give due notice of the time and place of all annual and special meetings, by publishing the same in the official journal of the Association, or if necessary in the opinion of the Finance Committee, by postal card to each member. He shall keep the minutes of the General Sessions of the annual meetings of the Association, and the minutes of each meeting of the Executive Council, in separate books, and shall provide minute books for the secretaries of

the different sections which he shall see are properly attested by both chairmen and secretaries thereof. He shall notify members of committees of their duties in connection therewith. Where necessary or deemed advisable by the President, he shall conduct correspondence with other organized medical associations or societies, domestic or foreign. He shall preserve the archives, the published transactions, essays, papers and addresses of the Association. He shall see that the official programme of each annual meeting is properly published, and shall perform such other duties as may be required of him by the President or Finance Committee.

Sec. 2.—The General Secretary shall be *ex-officio* a member of all committees.

Sec. 3.—For his services the General Secretary shall receive a salary which shall be fixed by the Finance Committee.

Sec. 4.—The General Secretary may also be elected to the office of Treasurer.

Sec. 5.—All his legitimate travelling expenses to and from the annual meetings and other places ordered by the Finance Committee shall be paid for him out of the funds of the Association.

Article IV. Local Secretaries.

The Local Secretaries shall assist the General Secretary at the annual and special meetings and shall perform the duties of corresponding secretaries for the respective provinces they are elected to represent; these duties shall be performed under the direction of the General Secretary.

Article V. Treasurer.

Sec. 1.—The Treasurer shall receive and collect the annual fees and demands of the Association from the members. He shall be the custodian of all moneys, securities and deeds belonging to the Association, and shall only pay out moneys on an order drawn by the General Secretary and approved by the Finance Committee, whose chairman shall also sign all such orders.

Sec. 2.—The Treasurer shall give to the Finance Committee a suitable bond for the faithful discharge of his duties, and shall receive for his services a salary to be fixed by the Finance Committee.

Sec. 3.—The Treasurer may also be elected to the position of General Secretary.

Sec. 4.—When the offices of General Secretary and Treasurer are filled by one and the same person, it shall be the duty of the Finance Committee to appoint a collector of dues and subscriptions at each annual meeting, who shall be responsible to the Finance Committee.

ARTICLE VI.

All the officers shall discharge the duties of their respective positions until the completion of the business and scientific proceedings of each meeting.

FINANCE COMMITTEE.

ARTICLE I. APPOINTMENT AND DUTIES OF THE FINANCE COMMITTEE.

Sec. 1.—The Finance Committee as set forth in the constitution, shall consist of five members annually appointed or elected from the members of the Executive Council. This Finance Committee shall have charge of all the properties of the Association and of all the financial affairs of the Association. It shall elect its own chairman. The chairman may then appoint any sub-committees that may be necessary or desirable in connection with the finances of the Association. This Committee shall have charge of the publication of the official journal of the Association, and of all published proceedings, transactions, memoirs, addresses, essays, papers, programmes, etc., of the Association. It shall have power to omit, in part or in whole, any paper or address that may be referred to it for publication in the official journal of the Association, by the general meeting, the Executive Council or any of the sections. It shall appoint an editor and a managing editor of the official journal, who may be one and the same person if by them deemed advisable, and shall define the respective duties and responsibilities of each. They shall also appoint such assistants as may be deemed necessary for the proper conduct of this official journal, and shall determine their salaries and the terms and conditions of their employment. The Finance Committee shall have the accounts of the Treasurer audited annually or oftener if desirable, and shall make an annual report on the same to the Executive Council. The Finance Committee may meet when and where they may determine, and the chairman shall call a meeting on the request of three members in writing, and three mem-

bers of the Finance Committee shall constitute a quorum for the transaction of the business of the Finance Committee.

Sec. 2.—The President and General Secretary shall be *ex-officio* members of the Finance Committee and the General Secretary shall act as the Secretary of the Finance Committee.

Sec. 3.—Any donations recommended by the Executive Council shall be paid only with the approval of the Finance Committee.

Sec. 4.—The Finance Committee shall fix the annual assessment, and where feasible make equitable arrangements for commutation with provincial societies according to circumstances.

COMMITTEES.

Article I. Classification of Committees.

Sec. 1.—There shall be (a) Standing; (b) Special and (c) Reference Committees.

Sec. 2.—Standing Committees. The Standing Committees shall be the following: A Finance Committee, a Committee of Arrangements.

Sec. 3.—The Finance Committee shall be appointed by the Executive Council and its members shall always be appointed or elected from amongst the members of the Executive Council.

Sec. 4.—The Committee of Arrangements shall be appointed by the President. They shall be residents in the place in which the annual meeting is to be held, and the chairman thereof shall be named by the President.

Sec. 5.—The Committee of Arrangements shall be required to undertake to provide for transportation; a hall or halls for meetings purposes; a hall for Executive Council meetings; halls for section work; rooms for committees; rooms for general secretary, and other secretaries; room for registration; room or rooms or halls for exhibition purposes.

Sec. 6.—The General Secretary shall act in an advisory capacity to the Committee of Arrangements.

Sec. 7.—The Committee of Arrangements shall have power to add to its numbers and shall name all the Reference Committees as well as the chairmen thereof.

Article II. Special Committees.

Special Committees may from time to time be appointed by the Executive Council; they may be named by the President on

the authority of the Executive Council. They shall perform the duties for which they were called into existence, and shall in all cases report direct to the Executive Council as hereinbefore provided.

Article III. Reference Committees.

Sec. 1.—The Executive Council shall at its first meeting appoint all the Reference Committees and name the chairmen thereof. Their titles shall be as follows: (1) A Committee on Sections and Section Work; (2) A Committee on Medical Legislation; (3) A Committee on Medical Education; (4) A Committee on Hygiene and Public Health; (5) A Committee on Amendments to the Constitution and By-laws; (6) A Committee on Reports of Officers; (7) A Committee on Credentials; (8) A Committee on Necrology.

Sec. 2.—The General Secretary shall notify each member of these committees so appointed, of his duties.

Sec. 3.—Committee on Sections and Section Work. The Committee on Sections and Section Work shall secure papers for the sections. It shall report to the President or to the Executive Council when required.

Sec. 4.—Committee on Legislation. To the Committee on Legislation shall be referred all matters pertaining to local and federal Medical Acts. It shall report to the President or the Executive Council when required.

Sec. 5.—Committee on Medical Education. To the Committee on Medical Education shall be referred all matters pertaining to medical colleges and medical education. It shall report to the President and Executive Council when required.

Sec. 6.—Committee on Hygiene and Public Health. To the Committee on Hygiene and Public Health shall be referred all matters relating to hygiene, public health, etc. It shall report to the President or to the Executive Council when required.

Sec. 7.—Committee on Amendments to the Constitution and By-laws. To the Committee on Amendments to the Constitution and By-laws shall be referred all matters relating to the subject, before action thereon by the Executive Council. It shall report to the Executive Council when required.

Sec. 8.—Committee on Reports of Officers. To the Committee on Reports of Officers shall be referred the President's address, the report of the General Secretary and the report of the Finance Committee before submission to the Executive Council.

Sec. 9.—Committee on Credentials. To the Committee on

Credentials shall be referred all questions regarding the registration and credentials of delegates, before submission to the Executive Council.

Sec. 10.—Committee on Necrology. To the Committee on Necrology shall be assigned the duty of collecting, as far as possible, the obituaries of members dying since the last annual meeting. These shall be duly filed by the General Secretary. The committee shall report on the call of the President at the last general session of each annual meeting.

Sec. 11.—Three members shall constitute a quorum of any Reference Committee, and all reports shall be made as hereinbefore provided.

SCIENTIFIC WORK.

Article I. General Meetings.

Sec. 1.—Date of Meetings. The date of each annual meeting shall be fixed by the President on the advice of the Committee of Arrangements.

Sec. 2.—Time of Meetings. The general meetings or sessions shall be held at 10.30 a.m., and 7.30 p.m., of the first day of any annual session and at 7.30 p.m. on the subsequent days. The President shall preside at all general meetings, and in his absence, or at his request, one of the Vice-Presidents.

Sec. 3.—The President shall deliver his annual address at one of the general meetings of the first day, as he may determine. The time of the deliverance of all other general addresses shall be arranged for by the Committee of Arrangements.

Sec. 4.—The order of business of the first general session of each annual meeting shall be as follows:

1. Calling the meeting to order by the President.
2. Prayer; by some one designated by the President.
3. Addresses of welcome and response.
4. The report of the Committee of Arrangements.
5. Reading the minutes of the last general session.
6. The report of the General Secretary of the last annual meeting.
7. Election of the Association's members to the Executive Council.
8. Presidential or other addresses, if decided on by the President and Committee of Arrangements.

Sec. 5.—The order of business for all subsequent general sessions shall be the same as that for the Executive Council.

Sec. 6.—All addresses delivered at any annual meeting shall immediately become the property of the Association, to be published or not, in whole or in part, as deemed advisable, in the official journal of the Association. They must, as soon as they have been delivered, be handed to the General Secretary, who shall refer them to the Finance Committee. Any other arrangement for their publication must have the consent of the author or of the reader of same and of the Finance Committee.

Article II. Sections and Section Work.

Sec. 1.—The sections to be held at any annual meeting shall be determined by the Executive Council. In default of their so determining the duty shall be discharged by the Committee of Arrangements, who shall also appoint or elect the chairmen thereof and the vice-chairmen and secretaries. These section officers shall serve for such meeting only, but any of them, if deemed advisable by the Committee of Arrangements, may be appointed for the following meeting in proper course.

Sec. 2.—Duties of the officers of sections. The chairman shall preside at each meeting of any section, or in his absence or at his request, the vice-chairman shall preside. The secretary of each section shall keep a correct account of the transactions, and shall record them in a special section minute book provided by the General Secretary. The chairman and secretary of each section must verify and sign the minutes.

Sec. 3.—Each section shall hold its first annual meeting at 2 p.m. on the first day of each annual meeting; and each subsequent day of the annual meeting at 9 a.m. and 2 p.m. until the programme of that section is completed. No section shall hold a meeting that will in any way conflict with a general meeting of the association.

Sec. 4.—Honorary members of this Association shall have the privilege of presenting papers before any section and taking part in any of the scientific discussions.

Sec. 5.—All papers, essays, photographs, diagrams, etc., presented in any section, shall become the property of the Association, to be published in the official journal of the Association or not as determined by the Finance Committee, and they shall not be otherwise published except with the consent of the author and of the Finance Committee.

Sec. 6.—Each author of a paper read before any section

shall, as soon as it has been read, hand it with any accompanying diagrams, photographs, etc., to the secretary of the section before which it has been presented, who shall endorse thereon the fact that it has been read in that section, and shall then hand it to the General Secretary to lay before the Finance Committee for publication, in whole or in part, or otherwise disposed of as may be deemed advisable by that Committee.

Sec. 7.—The order of procedure in any section shall be:

1. Calling the section to order.
2. Remarks by the chairman.
3. Reading minutes of previous meeting.
4. Reading of papers and discussions thereon.
5. Nomination of honorary members of the Association.

Sec. 8.—No paper shall be "Read by Title," except by unanimous vote of the section before which it was to have been read.

Sec. 9.—No business of any description shall be introduced at any meeting of any section except as hereinbefore provided. The time allotted for each paper shall not exceed fifteen minutes, and that for the discussion of such paper, five minutes.

AMENDMENTS.

Article I.

The Executive Council at any annual meeting may instruct the Finance Committee to make or to have made any changes in the articles of Incorporation which may appear desirable, or which may be made necessary by any change or amendment in the constitution and by-laws of the Canadian Medical Association.

Article II. Amendments to By-laws.

No amendment to by-laws shall be made except on a three-fourths vote of the Executive Council; provided that no amendment shall be acted on until the day of meeting following that on which the amendment was introduced, and approved by the Association.

Physician's Library.

American Edition of Nothnagel's Practice.—Diseases of Intestines and Peritoneum. New (2nd) edition, revised. by Dr. Herrmann Nothnagel, of Vienna. Edited, with additions, by H. D. Rolleston, M.D., F.R.C.P., Physician to St. George's Hospital, London, England. Octavo of 1,059 pages, illustrated Philadelphia and London: W. B. Saunders Company. 1907. Cloth, $5.00 net; half morocco, $6.00 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

In the volume before us a very considerable number of additions have been made. Nothnagel's "Practice" is such a well-known classic in medical literature that commendation from us is eminently unnecessary. Some alterations in the arrangement and substance of the additions made in the edition of 1904 are an undoubted improvement. The work is so exhaustive in character that to attempt to review each chapter would alike prove burdensome to the reader and unprofitable to the publisher. To those who have not yet perused the work we would like to call attention to the chapters on "Chemic Processes that Occur in the Intestine," "Bacteria of the Intestine," and the very satisfactory chapter on "Ulceration of the Intestine."

A Manual of Diseases of the Nose, Throat and Ear. By E. Baldwin Gleason, M.D., Clinical Professor of Otology at the Medico-Chirurgical College, Philadelphia. 12mo of 556 pages, profusely illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Flexible leather, $2.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

We have long felt a preference for the compact monograph or manual, especially for use in our "bedside library"—such a book as one can read in bed for an hour without suffering from partial paralysis of the hands and forearms through holding it. Of course we do not choose conciseness at the expense of thoroughness. Such being the case, it is not surprising that this little work of Prof. Gleason's makes such a favorable impression on us. It is thoroughly up-to-date, and quite exhaustive enough in its treatment of the different subjects for the under-

graduate in medicine as well as for the great majority of practitioners. We have been particularly impressed with the chapter on "Diseases of the Accessory Sinuses of the Nose." Altogether the work is one we can highly recommend.

The Major Symptoms of Hysteria. Fifteen Lectures given in the Medical School of Harvard University. By PIERRE JANET, M.D., Professor of Psychology in the College de France; Director of the Psychological Laboratory in the Clinic of the Salpètriere. New York: The Macmillan Company. Toronto: The Macmillan Company of Canada, Limited, 27 Richmond Street West.

This small volume of 337 pages of text deals with a very interesting subject, one which is very much, as it were, taken for granted. It is the collection of lectures of a foreigner delivered before an American class in the fall of 1906. The idea is a new and a good one, provided, of course, it is reciprocal. The lectures, fifteen in all, were delivered in Harvard and Johns Hopkins. The subject is well handled, and adds considerable to the literature.

International Clinics. Vol. III. Seventeenth Series. 1907. Philadelphia, London and Montreal: J. B. Lippincott Company.

This volume presents a number of interesting articles, among which might be mentioned one on "Inoculability of Tumors and the Endemic Occurrence of Cancer," by Leo Loeb, M.D., of Philadelphia, and one on "The Etiology and Experimental Study of Syphilis," by Frederick P. Gay, M.D., Bacteriologist to the Danvers Insane Hospital, Hathorne, Mass.

The Development of the Human Body—A Manual of Human Embryology. By J. PLAYFAIR MCMURRICH, A.M., Ph.D., Professor of Anatomy in the University of Toronto. Formerly Professor of Anatomy in the University of Michigan. Third Edition, revised and enlarged, with 273 illustrations. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co.

To the scientific student of anatomy, and even the practical one, the development of the human body is each year becoming

of more interest. It is not surprising then that one who has been himself a close and diligent student of the subject should seek to place it in a tangible manner in a separate volume, for the benefit of the student anatomist, nor yet is it any the less surprising that in five years a third edition has been called from the press. The text is clearly arranged; the illustrations are the very best. We have pleasure in heartily endorsing this book.

Gynecology and Abdominal Surgery. Vol. I. Edited by Howard A. Kelly, M.D., Professor of Gynecologic Surgery at Johns Hopkins University, and Charles P. Noble, M.D., Clinical Professor of Gynecology at the Woman's Medical College, Philadelphia. Large octavo volume of 851 pages, with 405 original illustrations by Mr. Hermann Becker and Mr. Max Brodel. Philadelphia and London: W. B. Saunders Company. 1907. In two large volumes. Per volume: cloth, $8.00 net; half morocco, $9.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

Judging from the first volume of "Gynecology and Abdominal Surgery," a most important contribution to medical literature has been made by the long list of eminent surgeons mentioned in the beginning of this work. In the first place the very title bespeaks a comprehensive treatment of a variety of subjects which have until now so often been discussed separately, but which are clinically so intimately associated. Thus we find certain obstetric or gynecologic-obstetric subjects as puerperal injuries, the treatment of incomplete abortion, ectopic pregnancy and Cesarean operations carefully discussed.

Special chapters are devoted to such important subjects as operations during pregnancy, operations before puberty, conservative operations upon the uterine appendages, and the complications of operations. An attractive feature of the work is a section on medical gynecology to meet the needs of the general practitioner, who will find here the information he requires concentrated in one section, without having to search here and there throughout both volumes. Needless to say, much attention is devoted to modern surgical technic, and much pains have been taken in preparing the large number of excellent illustrations.

A feature which appeals to us is the omitting of elementary matters found in most text-books.

The work also embraces elaborate consideration of the bac-

teriology and pathology of the diseases of women, and an historic resumé of the development of gynecology and abdominal surgery. There are sixteen contributors to this volume, among whom may be mentioned: Brooke M. Anspach (Philadelphia), Henry T. Byford (Chicago), George M. Edebohls (New York), Fernand Henrotin (Chicago), Howard A. Kelly (Baltimore), Beverley MacMonagle (San Frnacisco), Charles P. Noble (Philadelphia), Alexander J. C. Skene (Brooklyn), and J. Clarence Webster (Chicago).

Bacterial Infections of the Digestive Tract, and the Intoxications Arising Therefrom. By C. A. Herter, M.D., Professor of Pharmacology and Therapeutics in Columbia University; Consulting Physician to the City Hospital, New York. New York: The Macmillan Company. Toronto: The Macmillan Company of Canada, Limited, 27 Richmond Street West.

While this small volume of 351 pages of nice reading text does not claim to be an extended nor yet a systematic study of an important and much-discussed branch of medical science, it yet does contain much which will be new and of a great deal of practical value to the ordinary general practitioner, who ordinarily has a great deal to do in the field of gastro-enteric infection. The part which will appeal most to him is that the author has laid considerable stress in his little work upon the methods worked out in his own laboratory. One may thus take the volume as a practical demonstration from the hands of one thoroughly capable and experienced. We are satisfied that it covers the literature sufficiently well to make it a valuable working hand-book for the every-day general practitioner.

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Dominion Medical Monthly

And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

Rectal Anesthesia.—An interesting paper, by Dr. Noel Bleecker Leggett, of New York, dealing with this subject, appears in the October number of the *Annals of Surgery*. After giving a brief history of the development of this method of anesthesia, and after showing the principal difficulties with which the different investigators had to contend, he brings us down to the paper by Dr. J. H. Cunningham, of Boston, published a few years since in the *Boston Medical and Surgical Journal,* wherein Dr. Cunningham demonstrated the practicability of his method of anesthesia, which may be explained in brief as follows:

"The vapor of ether is forced into the rectum in such a way that there is no condensation, and absorption takes place with such rapidity that it is not possible for fluid ether to be forced into the gut. This is done by keeping the ether heated, yet constantly below 37 deg. C., which is its boiling point, and forcing the fumes into the bowel by means of a rubber hand-bulb." A special apparatus is, of course, required. "The rectal tube is inserted 8 to 12 inches. Ether fumes are then slowly forced into

the rectum. They cause a sensation of fullness so that the patient may have a desire to defecate. This is overcome by opening the exhaust tube, and allowing the gases, which are in the rectum, to escape. This should be repeated as often as may be necessary. It will immediately relieve any possible distress. . . . . The patient may have for a time a slight discomfort, then becomes gradually drowsy, and the odor of ether appears upon the breath. He falls asleep, and in a comparatively short time has passed into full narcosis."

Dr. Leggatt gives a report of 13 cases he has anesthetized in this manner. In the majority of them, ether was begun simultaneously by the mouth, as well as by the rectum, and as soon as narcosis was reached, it was maintained by the rectal method alone. Dr. Leggatt says:

"Rectal anesthesia may thus be summed up from two standpoints, viz., from that of the patient, and from that of the operator.

"The lessening of nausea, the lessening of irritation to the lungs, and the lessening of the bronchial secretions, which are nearly entirely absent in most of the cases, are certainly all in themselves favorable. Furthermore, a fully and continuously clean field of action in all operations about the head and neck, saving time and loss of blood, and above all, lessening the chance of infection from an ether cone, are all points in favor of the method which must appeal to every operating surgeon."

Criminal Abortion, and the Punishment of those who Practice It.—In a series of articles in one of Toronto's daily papers (from the pen of its able Editor), the honor of the Ontario Medical Council, and, indirectly, that of the whole medical profession of the Province, has been called in question in a most unwarranted manner. Such a stain, it seems to us, calls for more than a passing protest from the members of the profession in question, both for the sake of those whose honor is assailed, as well as for the enlightenment of the public at large, whose interest in the matter is co-equal with that of the medical practitioner.

It may be said without fear of contradiction that the first duty of man, in relation to his fellow-man, is to be strictly honest. Here, at least, is a rule which applies equally to the man who sells stock, manufactures a machine, dispenses drugs, or raises his voice in the endeavor to establish social or moral reform, or to bring a criminal to justice. It may also be claimed that even an honest man should *know* whereof he speaks, before he ventures to make assertions relative to any given subject. In other words, it is no excuse for even an honest man to say, "I did not know," when the veracity of his statements is questioned, or his data are shown to be founded on error.

The writer in question has sought to show that the onus of responsibility for criminal abortion, as practiced by a few members of the medical profession in this province, rests on the Ontario Medical Council, and therefore, indirectly on the members of the profession who elect that council, and furthermore that it is their duty to see that such malefactors are brought to justice. And the reasonable inference one must draw from the fact that the Medical Council is not periodically dragging various and sundry offenders before the bar, is that Council and profession alike are shielding the said offenders. This, we claim, is not only an unfair attitude for this Editor to assume, in so far as it concerns his personal belief, but is also a conscious misapplication of the facts calculated to mislead the mind of the masses.

What are the facts of the case, as he must, or ought, to know them? Doubtless some few practitioners exist here and there, who, for a consideration of gain, will stoop to commit crime. The criminal records of the Province might justify such a supposition. But to imply that these offenders are well known to the profession at large, is at once absurd and unjust. Is the medical murderer—if such one might justly style the professional abortionist—such an inborn idiot that he will proclaim to the world at large, and his professional brethren in particular, his criminal practices? Does he call in any of his confreres to assist him in his nefarious work? Not likely! How, then, are his brethren to *know* of his wrongdoing? (And mark you, he has a right to style himself our "brother," until such time as he has been unmistakably proven to be unworthy of our noble fraternity.) The trouble is, we do not *know* him to be a criminal, and *may* never know him as such in this world. The Editorial writer in question says very glibly, "These men are well known." To whom are they known? Not to us. To the Editor himself? Then if so it is his bounden duty to lay the matter before the officers of the Crown, for this is a criminal

offence, and punishable only by the Crown. Furthermore, if he *knows* who the guilty party is, and does not seek to bring him to justice, he becomes *Particeps Criminis,* and as such should himself be brought to account for his complicity. "Well," he may say, "I do not actually *know* that such and such a physician is guilty, but I have heard—" . . . . !- Then, in common honesty, let him not lead the public to believe that—"such people are well known," at least to the profession. The writer has been in active practice for seventeen years, and during that time has heard vague rumors of a few medical men who are said to do criminal operations, but we do not *know* that such is the case, neither could we possibly prove it. Surely the gentleman would not have us rush to a magistrate with the plea, "I hear Dr. —— is doing criminal abortion!" And if he would have *us* adopt such a foolhardy procedure, can *he,* being honest, refrain from a like course? It goes without saying that the great majority of our profession feel keenly the blot that is put upon our fair name by the unprincipled few, but this does not warrant us in one and all taking up the roll of secret detective; *that* is the province of the proper legal authorities.

The Medical Council of Ontario is doing its utmost to maintain a clean profession in this Province, and is also doing its utmost to safeguard the interests of the people at large, by keeping out Quacks, and God knows what fake "pathies," as well as by keeping up a high standard to which all its graduates must conform. If the public and the press do not possess the brains to appreciate this fact, so much the more are they to be pitied. Such an unwarranted attack on our professional honor is as groundless as it is cowardly; but then, after all, the dog sometimes bites the hand of the master who feeds it!

There is a lot of twaddle heard among the laity about the medical profession being a "Doctors' union," "a close corporation," and what not, all of which is calculated to cast a slur on a profession which is *not* exclusive, but, on the other hand, is open to all, male or female, who choose to comply with the requirements for admission thereto.

It seems to us it were better if the press and the people would spend less time in heaping opprobrium on a profession which has no cause to blush for either its past or present (and which is too busy seeking out means to minimize human suffering to waste time in answering carping criticism, and would devote their energies to a more careful inspection of the cleanliness of their own skirts. Let the wage-earner consider more carefully if he gives value for the money he receives, the minister of the

Gospel be more circumspect in the matter of giving unqualified recommendation for Quack nostrums, of which he knows nought, and the newspaper man be more particular about inserting advertisements of abortifacients, under the guise of "menstrual irregularities cured, *from whatever cause!*"

Let us all refrain from too hastily judging the whole bag of apples of inferior quality, because there happens to be a rotten one on top! Let us all endeavor to be honest, and the Editorial reformer more careful in his statements, remembering that it is *not* the function of the Medical Council to try, sentence, and execute the medical criminal, but rather that this duty devolves upon the legal officers of the Crown.

Canadian Medical Protective Association.—The very satisfactory manner in which the Canadian Medical Protective Association has been managed must especially appeal to those members of the Canadian profession who as yet have not been sufficiently interested in their own individual welfare, to say nothing of the collective welfare of the entire medical body, as to take the necessary steps to become members of that now well-established, keen and progressive organization. That an organization of this character could thrive as it has done and grow in membership steadily from year to year since its inception in Winnipeg in 1901, speaks exceedingly well for its management. Not a single case it has undertaken to defend has been lost; and each year, as its defects in working have been learned of, it has been perfected and thereby strengthened. This, we consider, is most remarkable. Under the Constitution as amended at the recent annual meeting in Montreal, it is now necessary for an applicant seeking membership to be nominated by two members of the Protective Association in good standing; and the qualifications for membership are on the lines of those for membership in the Canadian Medical Association. Its organization was the best work ever done by the parent Association. It is inconceivable that all the members of the latter have not yet become members of the former. However, an Association with a membership of 528 and a bank balance of over $2,000, with the history of having never lost a case, is a great achievement for which the membership may well thank its management.

News Items.

Dr. Robert S. B. O'Brien, Nanaimo, B.C., is dead.

Toronto is adopting a measure of medical inspection of schools.

Dr. Niddrie, of Creemore, was badly shaken up in a runaway accident recently.

The death is announced of Dr. Buchan, for many years in the asylum service of Ontario.

More whiskey was drunk and more tobacco smoked in Canada in 1906-1907 than in 1905-1906.

A new nurses' home is to be built in connection with the Royal Jubilee Hospital, Victoria, B.C.

Original research work in the opsonic theory is to be carried on by the Medical Faculty of Queen's University.

Dr. F Cawthorpe, of Tiverton, has purchased the medical practise of Dr. Kilbourn, on Hastings Street, Parkhill.

Vancouver General Hospital has found it necessary, to avoid hospital abuse, to appoint a collector of accounts.

Dr. Grier, who has had charge of a practice in Quebec for some weeks for another physician, is back in Dundalk again.

Dr. F. J. Ball, Rugby, left recently for Regina, Saskatchewan, where he intends making his home for the present.

Dr. Galbraith, who has been practicing in Dundalk for the past two years, has purchased a business in Western Ontario.

Dr. A. K. Gifford, formerly of Wingham, has been appointed license commissioner for Welland, to succeed Alex. S. Murray, resigned.

Dr. A. K. Gifford, formerly of Wingham, has been appointed resident surgeon of the London Asylum for the Insane, and commenced his duties on October 1st.

Dr. Walter B. Geikie, Toronto, for many years Dean of Trinity Medical College, has received the honorary degree of Doctor of Laws from Queen's University.

Dr. Wm. Oldright, Toronto, Professor of Hygiene in the University of Toronto, has returned from several months' visit to the old land.

Dr. Joseph E. Gibbs, Victoria, B.C., was in Toronto recently on his way home from Vienna, where he was doing graduate work in genito-urinary surgery.

Dr. Sheard, Medical Health Officer, Toronto, favors the establishment of a civic hospital, owing to the hospitals having raised their rates from 50 cents to 70 cents per day.

Dr. F. F. Westbrook, Dean of the Faculty of Medicine in the University of Minnesota, delivered the annual opening address to the students of the University of Manitoba.

Dr. T. S. Sproule, M.P., has presented to the Markdale Public Library a five volume set in leather of Hansard's Debates and Speeches of the Dominion Parliament for 1905.

Dr. Edward P. Doherty, surgeon in the Maritime Penitentiary, Dorchester, N.B., died at the home of his brother, John A. Doherty, at Moncton, Oct. 2, after two years of failing health.

Associate Coroners recently appointed are: G. F. Johnes, of Webbwood, Algoma; J. E. Godfrey, of Richard's Landing, Algoma; W. A. Graham, of Toronto; Warren Kilborn, of Sharbot Lake.

Dr. C. A. Langmaid, who has been taking a special course in medicine in Glasgow and Edinburgh Universities, is now at Llantwit Major, a town near Cardiff, South Wales, in charge of a Dr.'s practice there.

Dr. Montizambert, Director-General of Public Health and President of the Canadian Medical Association, has been in British Columbia in connection with instituting precautions looking towards the introduction of bubonic plague into Canada.

Mr. R. B. Forbes, F.R.C.S., Stratford, Ont., has received the appointment of house surgeon in the West London (Eng.) Hospital. Mr. Forbes has had a very successful medical career, graduating from McGill University, taking the degree of M.R.C.P., L.R.C.S. in 1906, and the degree of F.R.C.S., London, in 1907.

About a dozen doctors from Stratford, Goderich, Clinton and other places, members of the Perth and Huron Medical Society, met at Clinton Wednesday afternoon, October 2. The meeting was an interesting one from a medical standpoint. Dr. Gunn presented a case, and Dr. Lorne Robertson, Stratford, and Dr. Macklin, Goderich, read papers.

Publishers' Department

OXOLINT is a new product which will be of great interest to our readers. By the Mudge process it is prepared from flax stock, and is said by surgeons of note to be a perfect absorbent linen. It is said to meet perfectly the requirements of medical and surgical practice, far surpassing absorbent cotton. It is manufactured by the Oxford Linen Mills, 212 Essex St., Boston. Canadian physicians visiting New York, may examine specimen products at 225 Fifth Avenue. A copy of a booklet, contrasting the old and the new method, may be secured through the Sterling Debenture Corporation, Brunswick Bldg., Madison Square, New York.

FOR NERVOUSNESS, sleeplessness and sexual excitement, characterized by erections or even chordee, various authorities vary in their recommendations. Ringer recommends the use of aconite and camphor. Bartholow and Phillips both advise the administration of lupulin. The value of Hyoscyamus has been appreciated by many medical men for a long time, and is quite valuable. Bromidia is to be highly recommended, since it consists of chloral, bromide, hyoscyamus and cannabis indica, and acts as a somnifacient, spinal sedative and hypnotic. The dose is a drachm to two drachms an hour before bed time.—*American Journal Dermatology.*

THE VALUE OF CODEINE.—*The Cleveland Medical Journal,* quoting from the *Denver Medical Times*, concerning Codeine, states that, according to Butler, "It is less depressing and more stimulating than morphine, does not constipate, cause headache or nausea, and rarely leads to the formation of a habit. Codeine seems to exert a special, selective, sedative power over the pneumogastric nerve, hence its value in irritative laryngeal, pharyngeal and phthisical coughs with scanty secretion. Like morphine, it has proved of value in checking the progress of saccharine diabetes, and it has been used for long periods, without the formation of the drug habit, inasmuch as when glycosuria was brought to a termination by dietary and other measures, the cessation of the use of Codeine was not followed by any special distress. The

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effects of Codeine on the alimentary canal are remarkable, in that it assuages pain as well or better than morphine and, nevertheless, does not check the secretions or peristalsis notably, unless the latter is excessive, as in dysentery." In view of these facts it would seem that Antikamnia and Codeine Tablets are a remedy which should find a wide field. Prof. Schwarze (Therapeutische Monatshefte), in writing upon the treatment of the different forms of dysmenorrhea, and the different forms of congenital deformity of the uterus, states that the coal-tar analgesics are of much use, as well as the preparations of iron and sodium salicylate. In many cases it is necessary to administer Codeine in small doses, and the tablets of "Antikamnia and Codeine" would seem to have been especially prepared in their proportions, for just these indications.

Some of the indications for Sanmetto are: Vasical irritation and atony; enuresis due to atony; incontinence of urine in children due to a weak bladder; dribbling of the urine in the aged, not due to paralysis or growths; urine expelled upon exertion, as coughing; cystitis; catarrhal discharges from bladder or genitalia of male or female; seminal emissions; prostatitis, enlarged prostate and pre-senility.

Pain.—This is the condition we are most often called upon in a hurry to relieve. Our therapeutic measures employed will be gauged by the cause, location, severity, etc. A hot water bag should always be accessible. Hypodermics or morphine should be used as sparingly as possible. Papine is an excellent pain-reliever that is devoid of the danger and unpleasantness of ordinary opiates. It relieves pain promptly, but does not produce narcosis, constipation, etc.—W. T. Marrs, M.D., in the *Medical Herald.*

Spinal Cord Complications of Anemia.—With increased knowledge of the anatomy and physiology of the brain and spinal cord, there is a growing opinion among careful clinical observers that many of the nervous phenomena accompanying general anemia can be directly attributed to resulting changes in the nervous system. The spinal cord complications of pernicious anemia have been recognized for some time, and it is no uncommon thing in these cases to find pronounced degenerative areas

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throughout the cord. The posterior columns and occasionally the lateral are most often involved, the nerve fibres being chiefly affected, without, however, the extreme shrinking usually observed in locomotor ataxia. While there can be no doubt that these conditions depend to a certain extent on the blood changes incident to the anemic process, it is more than probable that the toxins resulting from the attending hemolysis exert direct injury on the nerve cells. Fortunately the ordinary anemias are not attended by such extreme changes, and the resulting symptoms, with their speedy control under appropriate treatment, point to a functional rather than an organic origin. These symptoms, while extremely variable, usually consist of constant and pronounced backaches, especially in the cervical and dorsal regions, sensitive areas along the spinal column, variations in the spinal reflexes, paresthesias generally, and oftentimes irritability of the anal or vesical sphincters. Headache is frequently complained of, though the patient is usually able to sleep. The symptoms referable to the sexual function are also extremely variable, especially in the female, and range all the way from absolute frigidity to positive nymphomania. Frequent reference is made to the heart by these anemic patients, and while their symptoms may be somewhat due to the changes in the blood current, there can be no question that the sympathetic nerves suffer in the general involvement of the nervous system, and may therefore be directly responsible for the arythmia, tachycardia, etc., so often complained of. The great therapeutic value of Pepto-Mangan (Gude) is well shown by its rapid and pronounced action in these cases of anemia complicated by nervous derangements. With the rise in hemoglobin and the blood count which immediately follows the administration of Pepto-Mangan (Gude), the backaches and headaches cease, the sensory disturbances disappear, and the patient's nervous system rapidly returns to the normal. The comparative ease with which these cases are restored to health when thus treated will be exceedingly gratifying to the zealous practitioner. He, more than anyone else, realizes the danger of letting young females thus afflicted drag along indefinately, for he knows that the psychic influence of long continued sensory disturbance is extremely prone to develop and magnify any hysterical tendencies however latent. Early and efficient treatment is therefore not only desirable but urgently necessary, and Pepto-Mangan (Gude) will never prove disappointing.

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ON TWINS AND DOUBLE MONSTERS AND SUNDRY OTHER TOPICS.*

By J. George Adami, M.A., M.D., F.R.S.

This year's meeting of the Canadian Medical Association is memorable in that, for the first time there has been instituted a laboratory section, at which the increasing amount of research in the various branches of our science carried on in the various medical centres of the Dominion shall be recognized. And I take it that to further signalize that departure, a pathologist has been asked to give one of the general addresses, the first time, if I mistake not, that this honor has been conferred upon one who is purely a laboratory man. Wherefore, under those circumstances it behoves me first and foremost to voice the appreciation and the aspirations of my fellow-workers in research.

The Laboratory Workers Section.

We may be but a small section of the whole body corporate of the medical men of this Dominion, and numerically but a feeble people, but with that supreme self-satisfaction which is apt to characterize inconsiderable minorities, we are firmly convinced that we are the leaven that leaveneth the whole lump. This, of course, is presumption on our part, only the fact is that

*An address delivered before the Canadian Medical Association, Montreal, September, 1907.

we firmly believe it. We believe that sure advance in modern medicine must be based upon experimental observations, must come most, naturally, that is, from the laboratories; that to stand still, to be satisfied with what has been accomplished, is to go backwards; that meetings of an association which purports to represent Canadian medicine, at which, as has too often been the case in the past, laboratory papers have been absent, or if delivered, have come into the world like the supernumerary child, in chilly silence and without acclaim—that such meetings have been even as eggs eaten without salt. We admit contritely that in part and in the past, we have been to blame for this state of things, that in our youth—for we are all young; the spirit of enquiry is the spirit of youth—in our experience, and in our enthusiasm, we have been apt to inflict upon our hearers lengthy and precise descriptions of minutiæ, possibly imagining that what interests us must interest others, and to read dreary tables of statistics which have not come up to the standard of oratorical edification that should prevail at general meetings. In short we have made the mistake of thinking that we should deliver the very words that are to be printed, rather than giving the gist of our enquiries. We have been bores, we admit it. But although there be no virtue in the "tu quoque," we have not found ourselves alone in this respect; we, ourselves, have come to make a fundamental diagnosis of the nature of the wood constituting the seats on which we sat, while listening to the trivial ups and downs, day after day, through, it has seemed, long months, of the patient who has not been allowed to die in peace. All this notwithstanding, if Canada is to take the same place in the medical world that she is rapidly and surely gaining in the world commercial and political, we are convinced that everything must be done to encourage the spirit of investigation among our younger men. We are convinced further, that generous as is the welcome accorded to our workers by the various special societies and scientific journals across the border and across the seas, and useful as it is, and politic, that good work accomplished here should be published broadcast, nevertheless there should be some central opportunity offered here in Canada for the best work of the year to be brought forward and given to the world as a home product. Now this association must lead in that encouragement if it is worthily to represent Canadian medicine, and must afford that opportunity. This Montreal meeting represents a proper appreciation of the place that investigation holds at the present time, an appreciation that we laboratory workers appreciate. Taking into consideration all the circumstances, it is perhaps a

happy solution that we should be treated as Peter is said to treat the members of a small but spiritually exclusive denomination, and be conducted to a little Paradise of our own and to ourselves.

The Association and Medical Research.

But badinage apart, I am convinced that in former years those in charge of the programmes for our meetings have shown grave error in judgment in not encouraging more actively the publication of the more scientific communications before this association. The prime object of our body is to bring together practitioners from all parts of the Dominion, and Canada being mainly country, diluted perhaps with a considerable body of water, and the country practitioner being in the majority, the impression has been advanced work in medicine would frighten him away. Now I believe that this has been a piece of Pharisaism on the part of our town physicians who have had the arrangement of the meetings. There is, of course, the practitioner who has rusticated and has rusted, but that class is both of urban and of rustic incidence; it exists in our cities to, I believe, an even greater extent. Nothing will bring men of that type to our meetings. Despite my lack of opportunities I have come across here in Canada, country practitioners whose libraries outshame those of most city consultants, men right up to date, eager and active to know the last advance; and those, I judge, are not few in number. I can, on the contrary, recall the study of one leading physician in one corner of which lay the year's accumulation of medical journals, still in their wrappers, all unread. He appeared only to take in two, or at most three. That man, despite his position, characteristically absented himself from meetings of this association and of our local society.

Here let me confess that I never realized so vividly the might and keenness of the general practitioner on this continent as I did this last June. It was my good fortune to be invited to attend the meeting of the American Medical Association at Atlantic City. Now I had heard of that association as, in the past, a huge body of which those who were not politicians and officeseekers had joined because of the excuse for a cheerful annual holiday afforded by the meetings; and that the papers presented, when not barefaced advertisements on the parts of specialists to increase their clientele, were *crambe repetita* "cabbaged" from the more popular text-books. I knew that there had been a rapid change for the better—one had but to read the journal of the association to see this—but I was wholly unpre-

pared for what I encountered. In every one of the many sections, judging from the syllabus afforded, the papers were of as high order as one finds at Washington and elsewhere at meetings of the special associations—I know that they were in the Pathological section which I attended. There was a combined meeting one morning, to discuss the subject of Disease of the Thyroid. Thyroid disease is not common; it is only in Michigan and the northern States that goitre is at all frequent, while exophthalmic goitre in general cures itself if you give it time. The subject is not one making a special appeal to the general practitioner; what is more the discussion was opened by a relatively young physiologist, followed by two equally young pathologists, and only then by a physician and two surgeons. Throughout there was maintained the same high scientific level. But there were between three and four thousand practitioners attending that session. The acoustics of the hall were poor, there was no brilliant discovery to be announced, but so intent was everyone that the hall remained packed to the very end, and so still was the audience that it is scarce an exaggeration to state that, save between the addresses, one might hear drop the proverbial pin. I have been at the crowded general meetings of more than one international congress, but never has a collection of medical men so appealed to me. There was that mass of, in the main, general practitioners straining to hear the last news, the latest word that science and practice had to say; not to gain tips, but to know for the love of knowledge.

And if, gentlemen, that is the spirit animating our colleagues south of the line, I am convinced that the same animates the body medical here in Canada. It is an attempt to tickle the palate of the aforementioned "rustics," rather than an appeal to the thoughtful and those who would advance themselves and welcome advance in the profession they love, to run down research and decry a practical intimacy with the basal sciences upon which is built the science of medicine, as was done, I regret to say, in an address delivered at the last meeting of this Association in Montreal. I speak frankly, for the speaker on that occasion is nothing if not frank, and his crime deserves the pillory. What perverse spirit entered into him upon that occasion I do not know, for his life stands out in violent contrast to his words—his life, not merely as a constant student, but as enthusiastic teacher, one who, if any one had sinned in requiring too much laboratory work, was himself the prince of sinners, for he demanded, and still demands, that the students put in at least four times as

much work in his laboratory as they do in the laboratory connected with any other subject of the curriculum.

I do not in the least mean to uphold that we should turn out the ordinary graduate a finished chemist, an accomplished bacteriologist, an anatomist of parts, a man who can use the latest stain devised by Mallory for differentiating the different orders of fibrils in the spinal cord—nothing of the kind. Nor has the curriculum at any Canadian university so far permitted anything of the kind. To make a man not an investigator, but merely a competent working bacteriologist, requires a course of four hours a day for two months, or about 200 hours' steady work at the least; we have been able to give at most 70—have been able, that is, to give our men a good knowledge of the medical aspects of bacteriology, to make him able to carry out the simpler and more important clinical procedures in connection with the establishment of a bacteriological diagnosis, and that not as a mere mechanician, but as comprehending the why and wherefore of the processes, and above all, I trust, have given him that amount of knowledge that will permit him in after years to follow rationally and with interest the developments of the subject as they appear in the medical journals. That is not making a bacteriologist; it is helping to educate a well-equipped medical man. Could less be asked, or be striven after? Given a good solid foundation, and the house can be builded well and surely at the time, and can support additional storeys in time to come. Given a poor foundation, and the house at most is pretentious, but insecure; it will not stand additional superstructure, save of the flimsiest, and if, recognizing its weakness, there is desire later to strengthen the foundations, that can only be done at great labor, great cost, and the imminent danger of cracking the walls. There is only one period at which the foundations can be laid satisfactorily in medicine; one builds the structure of clinical knowledge and dexterity upon this all the rest of one's life.

The Five Years' Course.

I do, however, fully admit that during the course of this generation, the development of medicine in every direction has made it that the increase in basal knowledge demanded from the student has been so great, that the labors of the children of Israel in Egypt were child's play in comparison. For the four years of the course, his has to be an Egyptian bondage with a vengeance, and, for us as teachers, it has been a question which, as taskmaster, could most stimulate and get the best work out of

him. But meanwhile there has been nothing of the nature of a protest from the profession at large that we, the university teachers, as a body, have asked too much. All the same, it is cruelty to animals to compress into four all too brief sessions what we have sought to administer to the student. It is at least suggestive of what are the ideals of the profession at large to observe the wide approval that has greeted the move taken by Winnipeg, McGill, and Toronto, in establishing a five years' course.

And here in speaking of that five years' course and speaking for McGill—I believe the same is true of Toronto—let me say that our plan is not to cram in more subjects, but to teach more thoroughly and without over-pressure; to so teach preliminary and intermediary scientific branches of the curriculum, as to prepare the student to take full advantage of his later opportunities, so that the greater part of the fourth year, and practically all the fifth, shall be spent, not in the college lecture rooms and laboratories, but in the hospital. Our plan at McGill is that in that fifth year, save on one day in the working week, the student shall be in the wards, and out-patient department, and operating room, in medical theatre and clinical laboratories of the hospital from nine o'clock in the morning until five o'clock at night. If thereby we do not turn out soundly trained clinicians, it will not be for lack of opportunities afforded. I do not wish to be Chauvinistic, but I am firmly of the opinion that by this means we shall send forth a sounder product, a more capable, self-reliant, and better provided practitioner than any school upon this continent. I do not wish to be mistaken in this matter; there are schools to the south of us that are already provided to develop better specialists, whether in the medical sciences, physiology, pathology, bacteriology, pharmacology, or in particular branches of medicine and surgery. I speak here of the bulk of the students that come to us to be equipped for their life's work, to those intending to be general practitioners. It is they that should be, and that have been, our first thought as a teaching body; it is to them that I now refer.

Twins and Double Monsters.

So much, perhaps too much, by way of introductory remarks. Now to the subject which I have taken as the main title of this address. I think it will be generally admitted that I might have chosen one having a somewhat more practical bearing and direct

appeal. As for double monsters, one rarely encounters them in the ordinary course of professional life, and if one does, there is nothing for us but to conduct them to the nearest museum, and as for twins, there is no call for us to interfere with what Providence in His abundance sees fit to send. At most the only variation from the ordinary that they entail upon us, is that, if I mistake not, we undertake two deliveries for the one fee, with no appreciation on the part of the male parent of the generous and forbearing nature of our act. Let me acknowledge with set purpose and of malice aforethought, if you like so to term it, I have carefully chosen the subject which, on the face of it, seemed furthest remote from practical bearing, just because of my belief that those attending this Association do not come purely for the purpose of acquiring tips, but because of their interest in all medical advance. Contrary to appearances, it has a very direct bearing. A study of the principles underlying double births leads directly to a fuller understanding of the phenomena underlying tumor growth, and a right grasp of the nature of cancer is the most serious problem before us at the present time; all this I hope to demonstrate in the paper I am giving in the pathological section. Here I shall confine myself to an attempt at a description and classification of the main forms of double growth.

The rest of Dr. Adami's address consisted so largely of a demonstration, by means of the lantern, of different orders of twins and double monsters, that without abundant illustration it would be impossible to render his remarks clear to the general reader. Briefly he discussed the previous theories enunciated regarding the mode of origin of twins and double monsters, pointed out wherein he considered that these theories were imperfect, and suggested a theory that he had been led to develop by study of the problem extending now for many years, which he would term the "growing point" theory. He holds that the development of the embryo from the first appearance of the gastrula stage, up to the stage of development of the medullary groove, and appearance of the first indications of the cerebral vesicles—up to the time, that is, of the laying down of the matrices of different parts of the future organism—is of a nature identical to what occurs throughout life in the plant, namely, that growth in length occurs by the giving off of cells backwards from a superior and inferior growing point respectively. The mode of development of the bilaterally symmetrical embryo demands that there be not a single apical growing point cell, but

a pair of these, and as these cells have the potentiality to give rise, by successive division, to all the orders of tissue, and all the tissues of the individual, so each when separated from its fellow can give origin to a complete (anterior or posterior) series of organs. Dependent upon the period in early embryonic life at which the separation occurs so may we have,—

1. Complete division, with formation of two separate embryos from the one ovum (monochorial twins). Dichorial, dissimilar, twins originate from two separate ova.)

2. Separation of the superior growing point cells at early or late period, leading to the various grades of anterior or superior deduplication from Dicephalus quadribrachius (earliest) down to deduplication only of the pituitary body (latest).

3. Separation of the inferior growing point cells causing inferior or posterior deduplication, with a corresponding series of forms, the slightest and latest being cases of deduplication of the external organs of generation.

4. Combinations of both superior and inferior dichotomy (Anakatadidymus).

5. Separation of the primordial cells given off from the superior and inferior growing points, the cells at the growing point not dividing, leading to Mesodidymus (very rare).

Besides these conditions of dichotomy, he discussed the series of cases of complete division of the embryo, and tendency to form two embryos upon one ovum, with subsequent fusion. This fusion he divided into:

1. Ventral.

2. Latero-ventral.

3. Superior—(*a*) apico-polar (early fusion, leading to Janiceps formation), and (*b*) dorsi-polar (late, craniopagus).

4. Inferior—(*a*) apico-polar, leading to the condition of pygopagus, and (*b*) dorsi-polar (late, leading to xiphopagus).

He further pointed out that the continuance of proliferation by the growing point cells, after the Anlagen of the axial organs have been developed, affords the simplest and most satisfactory explanation of the curious series of teratomas developing at the site of the anterior and posterior poles of the embryo, namely, conditions of epignathus and congenital sacral teratoma.

Lastly, he pointed out that premature exhaustion of the growing point cells affords adequate explanation for the conditions of cyclops formation at the superior pole, of sympus or symelia at the inferior pole.

TUBERCULOSIS OF BONES AND JOINTS—BIER TREATMENT.*

By S. H. Westman, M.B., Toronto.

For the last fifteen years, Professor Bier, of Bonn, has been treating cases of acute infective diseases of joints, bones and soft parts, by arterial and venous congestion, maintaining the diseased foci in a condition of hyperæmia for a longer or shorter interval. For purposes of treatment, he has divided hyperæmia into two varieties, Arterial or Active, and Venous or Passive.

The best results have been obtained with passive hyperæmia, which he has applied, especially, to the treatment of tuberculous affections, and I wish, to-day, to describe to you Bier's method of treating tuberculous joints of the extremities, by means of venous hyperæmia. For the production of venous congestion a Martin's india-rubber bandage is applied to the limb, about two inches above the diseased joint, allowing the folds of the bandage to overlap slightly, and to cover the soft parts for an area of about three inches. The bandage is drawn so firmly as to produce a strong engorgement. The area below the bandage becomes bluish and swollen. The subcutaneous veins swell, and the joint is felt to be hotter than the corresponding joint of the opposite side. Tingling sensations are felt, but actual pain is rare, but if it does occur, and is not relieved after the bandage has been applied for a few minutes, the latter must be loosened. The patient should suffer no discomfort or pain from a properly applied "Engorgement Bandage," (Staungsbinde), and yet the joint has the appearances of moderately acute inflammation. In some cases slight œdema follows, but with such a short application of the bandage this is a rare occurrence. When it does occur, however, it can be reduced by the elevation of the limb for a short time after the bandage is removed.

The indications which point to too strong application of the bandage, are pain, severe œdema, absence of the peripheral pulse, decrease in temperature, and presence of vermilion spots in the parts on the distal side of the bandage.

This treatment is employed daily for one hour, and carried on for a period of nine months to one year. Care should be taken, in using the bandage, to apply it always above the diseased joint, and to bind a different part of the limb; otherwise, con-

*Read before the Ontario Medical Association, June, 1907.

siderable atrophy will result, at the site of the bandage, after nine months' treatment.

In applying the method of hyperæmia to the shoulder joint, it is necessary to use a piece of rubber tubing, somewhat resembling an Esmarks' tourniquet, instead of the broad Martin bandage. A piece of cotton is put loosely around the neck, forming a loop, The rubber tubing, covered with felt or wadding, is wound around above the joint, one end is slipped through the loop, the other over it, the right degree of constriction is produced and maintained, by clamping the two ends of the tubing together, on the upper aspect of the joint. Two straps are then passed under the ring of tubing, and fastened to it, one in front, the other behind the joint. The straps are then carried around the thorax and tied in the opposite axilla. The same degree of hyperæmia is produced and maintained as in the other joints.

During the course of the treatment, provided the diseased joint be in the upper extremity, the patient is allowed to go about, and to use his arm cautiously in gentle, active movements; passive movements are employed by the physician, or by the friends of the patient. Such manipulations must never be vigorous enough to cause pain.

When the disease affects the lower extremity, the patient is confined to bed, to prevent the weight of the body from causing deformity of the already diseased and softened joints. After a month or two, however, he is allowed to get up, with the joint fixed in removable plaster of Paris splints or some form of mechanical apparatus. Active and passive movements of the diseased limb are carried out in the pauses of the hyperæmia. Many objections have been raised to this exercise of tuberculous joints, and some surgeons have gone so far as to accuse Von Bier of employing gymnastics as a remedy. His answer to this is a reference to the excellent results he has obtained by this combination of movement and venous congestion.

Bier therefore renounces, on the whole, the well recognized treatment of rest for these cases, because of the fact that immobility leads to stiffness and a bad functional result. His object is to obtain, wherever possible, a movable and good serviceable joint; for he considers that the annihilation of such an important and useful apparatus as a joint is a very poor result of any treatment.

During the progress of the disease, local complications are not infrequent, and are not, as some surgeons maintain, a result of

the hyperæmia, but are merely phases of the disease, which are just as liable to appear with other methods of treatment.

When the treatment was in its experimental stage, cold abscesses were frequent, and were predisposed to by the long application of the bandage, and by the extreme œdema which was caused thereby. These abscesses were allowed to grow larger, and were treated by aspiration and injection of glycerine-iodoform emulsion. The results were very discouraging. Now, however, with the daily application of the bandage, for only one hour at a time, abscesses have occurred less frequently, and when they do present, are opened as early as possible. If in doubt as to the presence of pus in a fluctuating or pseudo-fluctuating spot, it is better to incise it, even if no pus be found, than to make the mistake of allowing it to grow larger, for early evacuation of these abscesses gives an infinitely better result. In his treatment of these abscesses, Bier employs the aid of the cupping-glass, or, as the Germans call it, Schröpfkopf. The part is carefully sterilized, the abscess is opened, and the mouth of the cupping-glass is applied to the opening. A suction action of the glass is produced by a strong rubber bulb attached to it. The tissues inside the rim of the cupping glass immediately become swollen and hyperæmic, and pus, caseous matter and blood are drawn off into the cup. After a period of five minutes the cup is removed for an interval of three minutes, and at the end of three-quarters of an hour, including the pauses, the abscess is covered with an aseptic dressing. This cupping is employed daily, for the treatment of sinuses or fistulae, either the result of recent or old abscesses.

Under this treatment, the soft, pale, flabby, tuberculous granulations soon become hard and red. When this stage is reached the glass is applied every two days, and as further improvement takes place, every three days, until a cure results. With this method the sinuses are not scraped, neither are they probed, packed or drained.

Great precautions are taken to ensure complete asepsis, and for a long time Bier did not employ the cupping-glass, because he was afraid of secondary infection. After a few weeks of this combined treatment of cupping and bandaging, Klapp, a colleague of Bier, injected the drawn-off contents of these sinuses into the peritoneal cavity of a number of animals. None of them succumbed, showing clearly the absence of any secondary infection.

The very worst cases of tuberculosis are first treated in bed, but even in these cases movements of the limbs are allowed.

Joints of the upper extremity that are painfully sensitive, and in which some displacement has taken place, are immobilized, until the pain and deformity subside.

In the out-patient clinics of the University of Bonn and district, Bier employs his treatment, with excellent results.

Joint tuberculosis is very prevalent in some parts of Germany, and where there are so many cases, it is neither possible nor advisable to provide a bed for each case. Many of the cases are therefore treated in the out-patient department by their own physician, under the direction of the chief of the clinic, and the bandages are applied for the first few weeks under his supervision. The patient remains sitting for an hour, and during that time the bandage is inspected to see that it is acting properly. Later, the patient's physician, with his additional knowledge of the method, looks after his patient at home; and finally, the friends, if they can be relied upon, are permitted to continue the treatment. The patient himself soon learns to know the feeling of a properly applied bandage, and can thus aid its application. The physician sees the patient at his home from time to time, and should complications set in—for example, cold abscesses—the physician brings his case to the clinic, the abscesses are opened, and the pus evacuated by the cupping-glass. Where the friends are intelligent, they can be instructed in the use of the cupping-glass, and allowed to carry on the treatment at home.

Not all cases of tuberculous joints admit of the Bier treatment, and the following conditions are contra-indications to its use. Amyloid degeneration in the viscera, severe cases of pulmonary tuberculosis, cold abscesses filling the whole articular cavity. These last appear very seldom, and almost always in the knee joint. Then, again, in cases seen for the first time, where there is much deformity of the joint, and the latter is in a faulty position, Bier employs operation, removing the disease and the deformity at the same time, either by excision or by amputation.

A consideration of Professor Bier's statistics proves very interesting. The best results have been obtained in the elbow, wrist and ankle joints, and in the bones and joints of the hands and feet; and the worst, in the knee joint. In this last joint more excisions have been done than in any other joint, because of the occurrence of large abscesses and deformity, which necessitate excision. With reference to the hip joint, I may say that the artificial production of hyperæmia in this joint has been so difficult, and has proved so unsatisfactory, that Bier has discontinued it. Some-

times the objective changes in the joint do not keep pace with the improvement in function and the disappearance of pain. The joint may be swollen and hard, and yet be quite movable and painless. The normal expression of the joint only returns gradually after a considerable period. On the other hand, cases have improved so rapidly as to throw a doubt upon the diagnosis.

Bad results of this treatment have been reported, such as the frequent occurrence of large abscesses, increase of the pain, the onset of acute inflammatory symptoms, and a more rapid progress of the disease. The results attained by other surgeons are not nearly so good as the results achieved by Von Bier, mainly because of errors committed in the application of the bandage, or of some other mistake in the technique. I do not wish to infer that all of the cases improve or become cured. Just as in other forms of treatment bad results occur, so in this method; and there are cases, now and then, which not only do not improve, but which become rapidly worse under the treatment.

I come now to the action of hyperæmia. One observer has shown, by test tube experiments, that the germicidal power of the serum from areas rendered hyperæmic by a bandage, was greater than that of the serum from the same part before the application of the bandage. Nötzel injected hyperæmic parts of the body in rabbits, with anthrax bacilli and streptococci in fatal doses; only 16 died out of 67. Some weeks later the remaining animals were again injected, this time into parts that had not been rendered hyperæmic; all of the rabbits died.

Various theories have been advanced to explain this germicidal action. Some have held that the leucocytes are the protective elements in the blood. Others, that the Alexines of the serum are vitally concerned in the destruction of the germs.

Through the investigations of Patch, of McGill, and Wells, of London, working in A. E. Wright's laboratory, a very rational explanation of the proved efficacy of Bier's methods of treatment by hyperæmia was evolved. The venous congestion of the diseased focus determines the presence in it of a fresh, vigorous lymph, and in this way the bacterial foci are flooded at regular intervals with a new lymph, richer in such protective substances as opsonins than that in contact with the diseased part. It was also proved that, by the compression of the bandage, bacteria or their products were driven out into the lymphatic channels, the result of this being to render the blood richer in protective substances or opsonins. In fact, Wells and others have actually measured the effect of compression of a limb, and have proved

that the opsonic index of a patient's blood rose as a result,—that is to say, after the application of a bandage to a tuberculous joint for an hour or two, the opsonic index to tubercle was found to be greatly increased. Such a result is equivalent to that achieved by the inoculation of a measured dose of tuberculin, say 1-1,000th of a milligram. Bier's method, therefore, may not simply be one of artificial hyperæmia, but of inoculation with bacterial products and the consequent increase of opsonins and other antibacterial substances.

In conclusion, I might remind you that the treatment does not take the place of radical methods, where these are indicated, but it does lessen the frequency of severe surgical measures.

In the great majority of cases it is pleasant for the patient, it relieves pain, it allows him use of the limb, it is easily applied and can be used by the physician himself, and, lastly, it affords a complete cure, with the best functional result.

Discussion.

Dr. B. E. McKenzie.—Bier is probably entitled to have his name associated with this means of treatment, because of the fact that he has given it so much attention and has presented it so systematically to the profession. Hugh Owen Thomas, of Liverpool, however, described it more than twenty years ago. The success attributed to his treatment of joints was attributed largely to the strap or bandage employed above the joint, causing venous congestion. The method is very efficient, especially in the treatment of acute infections of the joints.

CHRISTIAN SCIENCE.*

By Ernest Hall, M.D., Victoria, B.C.

In these days of inquiry into things deep and mysterious, when with the advantages of public education and general diffusion of knowledge, the public are refusing to take second-hand their ideas but must think and decide for themselves, it becomes us, who pride ourselves that "we are the people, and wisdom will perish with us," to step aside, rest awhile, and consider some of the fads and fancies that, while largely without the pale of orthodix medicine, yet command a large amount of attention, and which by our neglect are to a certain extent discounting the prestige of our profession. The truly scientific attitude of mind is that of careful investigation, even in the presence of absurd statements and of apparently impossible conditions. The indulgence in negatives so characteristic of many members of both the clerical and medical professions is not necessarily an indication of great scientific attainment, unusual powers of reflection, or even of a higher grade of judgment. It is better for us to preserve discreet silence with regard to phenomena outside our sphere of activities, than to say, with an air of finality, "It can't be done," or "It is impossible." The results of a century of physical development have closed our mouths to all negations regarding the future. The discoveries in the psychic world, while they have been more phenomena than the complete elucidation of the fundamental laws, are yet almost as great as in the physical realm. We realize and appreciate wireless telegraphy, we experience yet distrust mental telepathy, we exercise indirect suggestion in our daily prescriptions, yet ridicule the direct suggestion as exhibited at St. Anne and Boston. The time has come when we can no longer afford to ignore these forces, nor treat superficially the pretensions of the many cults that claim not a few intelligent followers. What is Christian Science but a timely protest by a large element of our non-scientifically educated, yet more or less intelligent people against the materialism of the Church, and the absence of the appreciation of mental processes and psychic forces

*The introduction to a lecture delivered before the Graduated Nurses' Society, Victoria, B.C., on the Psychic Forces in the Sick Room.

upon the part of our own professions? This has come as a natural corollary of our race evolution and scientific development, a timely warning both to the Church and ourselves, that if we desire to represent what humanity requires, we must adapt ourselves to the demands of the age.

We see in the activity of recent faith cure systems but a repetition of what has occurred with regard to the Hydropathy thirty years ago, with electricity about twenty years ago. The regular profession were loth to appreciate and incorporate into its therapeutic armamentarium hydropathy until quacks flourished and hydropathic institutions grew wealthy appealing to the popular demand. A similar state of affairs existed with regard to electricity, and even yet continues to a lesser extent. Our profession were compelled by popular demand to investigate these departments, and now the modernly equipped institution is not without its hydropathic and electric departments. What we have seen with regard to water and electricity we are now experiencing in the psychic department. With the exception of a few brave souls, we as a profession refused to recognize these forces until compelled to by the money-making propensity of the quack. We thus recognize in medicine a law of therapeutic determinism with which we must comply. We must investigate the immense mass of psychic material lying around us. We must endeavor to unearth the fundamental laws, the underlying principles which, unconscious to the operators, are the real factors in obtaining the results. It is not necessary that the subject or operator understand the laws upon which depend the result, more than that the infant must understand the alteration of the circulation at birth in order to continue existence in a new environment. A great truth has been grasped, yet they have not discovered it, but have pressed it into therapeutic service with a stage setting no less attractive than the mysticism that has clustered around popular religions.

We have read not a little in our journals regarding "popular delusions," mostly endeavoring to show the ridiculous side of the subject, and endeavoring to belittle the results. While we may have our own opinions regarding their philosophy, and pity those who in blind infatuation deny the evidences of their own senses, we must remember that people are usually better than their creeds, and that theories are to be judged by results, and that the action of a pill does not necessarily depend upon its constituents. We should not allow our attention to be

wholly focussed upon the contradictions and absurdities, neither should we assume the persecutor's role. Open opposition and ridicule have constituted the best tonic; as early Christianity thrived under persecution, so cults thrive on the hatred manifested by orthodoxy. We cannot check the development of any cult by open antagonism. It comes and flourishes because we have left some human desire or demand unfulfilled, to show us our self-appointed limitations, and to indicate the direction which our investigations should take if we hope to incorporate into our professions the complete circle of therapeutics.

We cannot but be impressed with the suggestive element which permeates the whole system. The premises may often appear absurd, the reasoning faulty, but through all runs the cord of suggestion, occasionally direct, but more frequently indirect and more potent in its sub-conscious influence.

Suggestion is now admitted to be a great therapeutic force, and if this system is built upon so potent a factor we must expect direct and striking results in the departments in which this force can operate freely. It is operative consciously and subconsciously, acting deleteriously or in the welfare of the patient, and it is for us to direct this force into channels of construction and reparation, to determine its true sphere and recognize its limitations. This is incumbent upon us, for the Christian Science devotees fail in the latter respect and endanger the lives by their inability to determine the inadequacy of Christian Science with reference to acute physical conditions. While suggestion has frequently removed acute headache, functional paralysis, and has been a helpful tonic in a hundred minor organic diseases, we have yet to know of strangulated hernia, typhoid perforation of intestine, or acute appendicitis that has responded to suggestion. While the armamentarium of the modern physician is largely suggestion, it plays but a very small part with the surgeon's activities. The public should be taught this limitation, and that can only be done by granting Christian Science its just measure of credit. This is no argument in its favor, but a recognition of the God they ignorantly worship. Many of the patients they handle are really sick; their cures are real recoveries. Some ills are imaginative, but "if a man be ill enough to believe he is ill when he is not ill, he must be very ill indeed," and there are none of us so self-disciplined but we occasionally fall into this category; but aside from this class there is a large mass of invalidism on the borderland between

functional and organic disease that responds to suggestion. Who can limit the action of the hope and expectancy upon distinctly organic lesions, which are inspired by their teachings? With their elimination of evil, which their process of cogitation vouchsafes ; with the eviction of a personal Devil, for which they are to be congratulated, and the non-existence of everything that worketh and maketh a lie; with the non-existence of disease, the elimination of post-mortem agonies; with the intensification of all the treasures of Bible promises, the Christian Scientists have much to be grateful for; and with such a creed accepted by the subconscious if not by the conscious mind, many a poor invalid throws off a burden that otherwise would crush him.

When the modern Medical College can make a place for psychic therapeutics, when the law of suggestion has been given its proper place in our therapy, and better theological conceptions will have displaced the fear, Devil worship, and the outrageous conceptions of the Deity, with all the absurdities of the 16th century theology, Christian Science will have accomplished its mission and will cease to be, and will be remembered for what it has been—a factor in our psychic education of no small pretensions.

Clinical Department.

A Case of Appendicitis Complicated with Acute Obstruction of the Intestine. HENRY S. BENNETT, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Assistant Medical Officer, Natal Government Hospital, Durban, in the *Lancet.*

The following case is of interest inasmuch as it comprises two serious conditions occurring at one and the same time, the cause of each being unusual.

The patient, a trooper in the Zululand Field Force, was admitted to hospital with the history that four days previously he experienced sudden and severe pain in the lower part of his abdomen; he commenced to vomit from this time. His abdomen had become distended and his bowels had been unopened. The symptoms continued and nothing could be retained in the stomach. On admission he looked worn, his eyes were sunken, and he was vomiting without reference to food, the vomited matter having a fecal odor. The abdomen was tense and distended in the centre, but there was no bulging in the flanks; there was tenderness on pressure all over but this was especially marked in the lower portion; no definite tumor could be made out. Percussion gave a tympanitic note in the centre but a dull one in the flanks, the area of dulness encroaching towards the umbilicus over the appendix region; the dulness in the flanks was shifting. Per rectum nothing abnormal could be felt. The pulse was 88 per minute, full and of good tension. His temperature was 96.6 deg. F. An inquiry into his past history then elicited the fact that some five months previously the patient had experienced sudden and severe pain in the lower part of his abdomen, the symptoms lasting, however, one day only. A two-pint enema was given, but without result except that a few specks of fecal matter came away.

The abdomen was opened through a median incision made below the umbilicus; the small intestine was much distended and its surface showed signs of acute inflammation; there was no great quantity of free fluid, and what there was was serous in character. On exploring the cavity some thickening could be felt in the neighborhood of the appendix, and on inspecting this site the appendix could be seen wrapped round a coil of gut. In order to facilitate working a transverse incision was made at

right angles to the first one and directed towards the right flank. It could then be seen that the appendix was completely encircling a portion of the small bowel; the organ had formed a collar around a single piece of gut only, showing that it must have taken up that position previously to its blind end becoming adherent, rather than first forming a loop through which a coil of gut had slipped. It was impossible to free the adherent end of the appendix without risk of tearing the intestine, for that organ had formed almost a complete circle on itself, the distal end being adherent to the posterior abdominal wall close to the cecum and beneath that portion of gut which it was constricting. The ring of appendix was therefore divided, the cut ends being immediately touched with pure carbolic acid. The gut having been freed the distal end of the appendix was detached from its bed, the proximal end being afterwards removed in the usual way. It was necessary to evacuate some of the contents of the small intestine in order to lessen tension and so allow the edges of the abdominal wound to be drawn together. The peritoneal cavity was washed out with normal saline solution and a drainage-tube inserted down to the site of the adherent appendix. On opening the appendix its wall was found to be much thickened and a pin, surrounded by a hard fecal concretion, was seen filling its lumen.

As to the immediate cause of the intestinal obstruction, the history of sudden pain, vomiting, and other signs of obstruction had suggested that a coil of gut had become kinked under a band or had slipped through a hole in the omentum or mesentery, but this was found not to be the case, for, as stated, the appendix was encircling a single portion of bowel only, and from the density of the adhesions must have been so situated for some considerable time, at all events for a longer period than four days. No doubt what had actually occurred was that a fresh attack of inflammation within the appendix had supervened, causing further swelling of its wall, and this had led to such constriction of the lumen of the gut as to cause absolute obstruction. The fact that the patient was on active service with the militia force at the time of being taken ill is sufficient evidence that there was no serious obstruction to the passage of feces before the present illness began; certainly he volunteered no history of constipation or of colicky pains when on duty. The patient was extremely collapsed after operation and died within four hours of leaving the theatre. He rallied sufficiently, how-

ever, to be able to state that he had no recollection of ever having swallowed a pin.

I am indebted to Dr. Joseph H. Balfe, the medical superintendent, for permission to publish the case.

Note on the Effects of Borax in Infants. James Charles McWalter, M.D. (Brux.), L.R.C.S. (Irel.), D.P.H., in *The Lancet.*

The question of the propriety of employing borax or other compounds as a preservative for milk or other foods is one which cannot be decided by the mere *obiter dicta* of the medical man. Powerful commercial influences are concerned in the use of preservatives in food and it is not sufficient for a medical man absolutely to condemn the practice if he finds himself in the witness box under the examination of an able King's counsel. This, gentlemen, will doubtless demand specific instances of the harmful effects, either from the witness's experiences or from credible works. These instances seem to be particularly scanty in British journals, although Dr. Wyley has done a lot of work on the subject in America. I wish, then, to record a case of chronic borax poisoning which is just now under my care and which seems as conclusive of the evil effects of the drug as a single instance can possibly be, for in this case the mother suckled the infant all the time and gave it no other nourishment.

The infant was two months old when I saw it and had been born a strong, healthy child. A fortnight after birth it developed thrush, for which borax and honey were applied. The child seemed to be relieved of the thrush by this remedy and developed such a liking for it that it was applied most liberally —from two to three four-drachm boxes having been used every week from the second to the eighth week. During this time a progressive wasting had set in, and when I saw the infant there was a marked erythematous eruption on the palmar aspect of the hands and on the plantar aspect of the feet, with distinct desquamation between the toes and the fingers; well-marked urticarial eruption was present on the arms and forearms, but the region between the legs was notably free from eruption. There were tumefaction and tenderness of the abdomen, and a raw, pinky redness of the lips, tongue, palate, and throat, with vomiting and looseness of the bowels. The face had a wizened look, the skin was soft and brownish, the eyes were bright, and

the joints, especially the knees, tender, swollen, and somewhat stiff. There was no evidence of syphilis or other cause for the wasting and rash except the borax, of which the child had about ten grains every day for six weeks. On stopping the borax and confining the infant to the breast milk, together with a little raw beef-juice, it appears to be recovering rapidly.

Note on a Case of Belladonna Poisoning. H. Jeaffreson Brewer, L.R.C.P. (Lond.), M.R.C.S. (Eng.), in *The Lancet.*

It is said that children are able to take belladonna well and do not suffer from any toxic effects, and on looking through Woodman and Tidy's "Toxicology" the only cases of poisoning in children were caused by taking large quantities of the berries. From this point of view I think the following case of what was obviously belladonna poisoning may be of interest.

To a boy, aged 4 years and 3 months, suffering from whooping-cough, I prescribed two minims of tincture of belladonna and two grains of bromide of potassium, to be taken every four hours. Within half an hour of the administration of the first dose, the mother told me, a red flush came out round the child's neck and on his chest. The mouth seemed dried up and the child was slightly delirious, but in about an hour he got much better. A second dose of the mixture was given four hours after the first, and again in half an hour the child suffered in the same way and was violently sick. Then I was sent for. On arrival I found the child almost covered with a scarlatiniform rash, chiefly on the neck and chest; the pulse was rapid (120) and very feeble; the mouth was dry; the pupils were fully dilated, a narrow ring of the iris only being visible; and the temperature was slightly raised (100 deg. F.). The child was only semi-conscious and was with difficulty roused and could not speak. On administering brandy consciousness and speech returned, the pulse slowed, and the pupils began to contract. When I saw the child on the next morning he had quite recovered, except for a very faint rash which entirely disappeared within 24 hours.

Considering the very small dose administered I think this idiosyncrasy worth recording.

Physician's Library.

Disorders of Respiration and Circulation. By PROF. EDMUND VON NEUSSEN, M.D., Professor of the Second Medical Clinic, Vienna, Associate Editor "Nothnagel's Practice of Medicine." Authorized English translation by ANDREW MACFARLANE, M.D. Part I., "Dyspnœa and Cyanosis." Price, $1.50. New York: E. B. Treat & Company. 1907.

This little work, "Dyspnœa and Cyanosis," forms the first part of a series of clinical monographs, the second part of which deals with "Tachycardia and Bradycardia," and the third part with "Angina Pectoris." This admirable series of monographs accentuates the value of the study of symptoms as observed at the bedside of the patient, and reproduces the marvellous clinical pictures of Frousseau, Niemeyer, Sydenham, Flint, and others, illuminated by present-day knowledge of pathology and clinical methods. The publishers are to be congratulated on their selection of these excellent monographs, as well as on that other series grouped under the heading "Disorders of Metabolism and Nutrition," by Prof. Dr. Carl von Noorden, Professor of the First Medical Clinic, Vienna.

A Text-Book of the Practice of Medicine. By JAMES M. ANDERS, M.D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Eighth revised edition. Octavo of 1,317 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, $5.50 net; half morocco, $7.00 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

That this is the EIGHTH edition of this excellent text-book of medicine speaks for itself. It is only two years ago since we had the pleasure of noticing in these pages the seventh edition. In this we find that it has been brought up-to-date according to the more recent advances in modern medicine. That part dealing with treatment has received especial attention. This makes it exceedingly valuable, as we believe where treatment receives such careful handling in a text-book of medicine it will appeal more to both student and practitioner. Treatment

is essential, and it does not do even for a text-book to dismiss any subject treated of with the curt statement there is no treatment for this or that disease. Pathology is a good deal; Diagnosis goes one better; but Treatment is the best of all. Patients require treatment more than everything.

A Treatise on Diseases of the Skin. For the use of advanced Students and Practitioners. By HENRY W. STELWAGON, M.D., Ph.D., Professor of Dermatology, Jefferson Medical College, Philadelphia. Fifth edition, revised. Handsome octavo of 1,150 pages, with 267 text-illustrations and 34 full-page colored and half-tone plates. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, $6.00 net; half morocco, $7.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

Diagnosis and treatment, the two most essential and practical parts in diseases of the skin, receive in Stelwagon's book careful and extensive attention. These facts have stamped the book first-class amongst similar works. In this, the fifth edition, fifteen new illustrations have been added, and two new plates. The eruptions of the leukæmias receive attention for the first time. There are also new articles which bring us into closer touch with tropical diseases, such as dhobie itch and uncinarial dermatitis. The book is a good one, and the enterprise of the publishers in keeping it up-to-date is to be commended.

Squint and Ocular Paralysis. With a Short Account of the Disturbances of Muscle Balance. By E. LUCAS HUGHES, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Clinical Ophthalmic Assistant, Royal Infirmary, Liverpool. Illustrated by the author. London; H. K. Lewis, 136 Gower St., W.C., Publisher. 1907.

In this work, which will perhaps appeal more particularly to the ophthalmic specialist, the author has endeavored to compare some of the best practical teaching of the English and foreign schools. In the non-operative treatment of squint the two principal instruments advised by the author to be used in the encouragement and development of binocular vision—which frequently forms a difficult feature in the treatment—are the diploscope of Rémy and the amblyoscope of Worth. He emphasizes the importance of the education of the fusion sense being undertaken at the earliest possible date.

Hygiene and Public Health. By Louis C. Parkes, M.D., D.P.H., University of London, and Henry R. Kenwood, M.B. (Edin.), D.P.H. (Lond.). Third edition, with illustrations. London: H. K. Lewis, 136 Gower St., W.C.

This standard work needs very little in the way of commendation, it is so well known and so universally appreciated. Under the conjoint authorship it has been carefully revised. New matter has been added to keep it up-to-date, and the work has been maintained in a handy form for ready reference, although the size of the page has been slightly enlarged. We heartily recommend this work to medical students, practitioners and sanitary scientists in general.

Diseases of the Genito-Urinary Organs and the Kidney. By Robert H. Greene, M.D., Professor of Genito-Urinary Surgery at the Fordham University, New York, and Harlow Brooks, M.D., Assistant Professor of Pathology, University and Bellevue Hospital Medical School. Octavo of 536 pages, profusely illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, $5.00 net; half morocco, $6.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

A large amount of space in this new book has been devoted to the urinary organs proper; not so much to sexual disorders. It is well, even elaborately, illustrated, printed in clear, good type, and will be sure to appeal to all classes of the profession. Attention has been paid rather to those methods found best applicable than to fully and exhaustively dealing with everything. The book can, therefore, be heartily endorsed as a good working handbook for the general practitioner as well as surgeon.

The Physician's Visiting List for 1908. Philadelphia: P. Blakiston's Son & Co. The price of this is $1.00. It is now in its 57th year of publication. This speaks for itself. The dose table has been revised in accordance with the new (1905) U. S. P. The book is supplied with pencil and side pocket, handy for prescription blanks.

The Commoner Diseases of the Eye. How to Detect and How to Treat Them. For Students of Medicine. With 280 Illustrations and 8 Colored Plates. By CASEY A. WOOD, M.D., C.M., D.C.L., Professor of Ophthalmology, Northwestern University, Chicago, and THOMAS A. WOODRUFF, M.D., C.M., L.R.C.P. (Lond.), Ophthalmic Surgeon St. Luke's Hospital, Chicago. Third edition, enlarged and improved, with Index. Chicago: W. T. Keener & Co., Publishers. 1907.

A very handy work for the student of medicine and the general practitioner, by which he may readily acquire a fairly intimate knowledge of the eye signs and symptoms of disease in general, and also of the diseases of the eye most frequently met with in general practice.

A Manual of the Practice of Medicine. By A. A. STEVENS, A.M., M.D., Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Eighth edition, revised. 12mo of 558 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Flexible leather, $2.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

This is an especially good little book on medicine for two reasons. The first is that students of the third year can rapidly become acquainted with the salient points in the realm of medicine. The second is that it is a splendid book to review just before examinations. It fills, therefore, a place, and a good one, in the subject of medicine. This, the eighth edition, has been thoroughly revised, and much new material has been brought in, particularly in Diseases of the Nervous System. We can very heartily recommend it, as it will be sure to prove decidedly helpful.

A Text-Book of Physiology. For Medical Students and Physicians. By WILLIAM H. HOWELL, Ph.D., M.D., LL.D., Professor of Physiology, Johns Hopkins University, Baltimore. Second edition, thoroughly revised. Octavo volume of 939 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company. 1907. Cloth, $4.00 net;

half morocco, $5.50 net. Canadian agents: J. A. Carveth & Co., Ltd., Toronto.

We consider Howell's Text-Book of Physiology one of the best for both student and practitioner. With it the former can secure a fine grasp of this subject; from it the latter always gathers reliable, up-to-date matter. This is the second edition, and it has been thoroughly revised. The book is practically the same size as the first edition, as useless matter has been eliminated to counterbalance the new introduced. There are also some new illustrations. No better book on this subject could find its way into the hands of a medical student.

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Under the Auspices of the Canadian Medical Association

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COMMENT FROM MONTH TO MONTH.

The Degenerate.—It must be growing more and more evident to the physician, and even to the thinking layman, that the occurrence of criminal assault is becoming more painfully frequent. It might seem at first sight that this is in a large measure due to two things: our increasing population, and the influx of a large number of foreigners of low mental and moral calibre; but on more careful consideration we think other and more potent factors in the causation of this intolerable condition must be taken into account. Quite apart from this undesirable and, perhaps, unavoidable foreign invasion, there is a most potent native force at work, which, to our way of thinking, is responsible for a large majority of local criminal records; we refer to the ever-increasing number of neuropathic subjects encountered in our everyday life. And it is not enough to state this evident fact; rather should we seek for the causes which produce this greatly increasing number of nervous bankrupts. This is a large order, were it attempted in detail; but for our

purpose it may be stated in brief as due to our social and commercial habits, and also to environment—which is perhaps embraced in the former circumstances, or is, at least, their logical product.

For example: We go to great pains to say that minors shall not be allowed to enter into matrimony, while the veriest criminal, the subject of neglected venereal disease, the subject with more than a suspicion of insanity in his family history, is freely permitted to take out a marriage license—that he may be free to procreate at will as many children as he likes! children which nothing but a miracle can prevent from becoming in their turn, if not vicious and criminal, at least nervous incompetents. Insurance societies take great care in the selection of "risks"; what precaution does society take to safeguard its ranks? We take no little pains in developing the finest breeds of cattle and horses, while at the same time the hands of the church are uplifted in blessing over human mental, moral and physical derelicts, with the solemn (?) injunction, "Whom God hath joined, let no man put asunder"! And at the same time we are spending hundreds of thousands for the uplifting of the heathen, while crime grows more rampant in our midst, and disease walks abroad unashamed!

The public press informs us there were something like seven or eight cases of criminal assault at the recent assizes held in this city. One of these criminal monsters not only assaulted a little girl of five, but also infected her with gonorrhea, for which he received a term of two years' imprisonment and the lash! ! What effect, in the name of shuddering humanity, could such a sentence have in the way of reforming a brute of this type? Might as well slap him on the wrist! The judge is helpless in such a case, for he may only inflict such punishment as the law allows. Meanwhile the populace sits smugly by and does nothing,—or, at most, says "how terrible!" Meanwhile, also, the scum of the earth marry and beget criminals or lunatics, which are carefully reared and in due time are housed in prisons and asylums at our expense!

It is about time the public should recognize the fact that in the great majority of cases larceny and lechery, murder as well as mania and sexual perversion, are evidences of a grave neurosis, and as such should receive scientific treatment,—which is tantamount to saying, not according to our present-day methods. The jail and the gallows on the one hand, and the church and charity on the other, have had their chance for centuries to work the much-needed reform, and with what result? The Degenerate is on the increase, because he is allowed to breed. Were it not well that some other form of treatment were tried? We think so.

The remedy is at once effectual, easily executed, and quite as speedy, if not infinitely more so, than present methods: Prevent the pervert from procreating his kind. After a due investigation of the case by the Crown, let the Medical Board under the Crown pass judgment on the patient—the nervous degenerate. Such a board, say, consisting of three medical men of unquestioned character and professional ability, appointed by the Crown (and therefore quite beyond the sway of politics or "price"), having concurred in the guilt of the individual as demonstrated by the legal authorities, should pass the ultimate sentence. Such an unfortunate should not only be put away where he can for a time be brought under the restraining influence of confinement, but should also (before being turned loose on the community) be rendered sterile, either by division of his vasa deferentia, or (as in the case, say, of the brute who rapes and infects a child), by total ablation of the external genitals. Even in the case of the so-called "reformed" criminal, vasectomy should be performed, as a safeguard against the transmission of vicious tendencies.

Female criminals could be dealt with in a similar manner, viz., by resection of the Fallopian tubes.

It might be objected that eunuchs have been known to manifest a high degree of viciousness and murderous ability. Let it be understood, however, that the eunuchs of the East were asexualized in youth, and that their murderous habits were

purely an after achievement, due to ample training in the gentle art of cutting throats and strangling, and in no wise the result of their early sterilization. To sum up this phase of the treatment, it may be said in extenuation, that society has a right to protect itself against the breeding of criminals and those who are mentally, morally and physically unfit to take their place in the ranks of sane and healthy citizens.

What of prophylactic treatment? Lydston says: "I am well aware that sentiment is strongly against the regulation of matrimony, as an interference with individual rights. This sentiment, however, is absurd, in view of the legal formalities with which it is even now hedged about. . . . Inasmuch as sentiment has hitherto been no bar to the demand for a license, the exaction of a license fee, and the subsequent performance of the marriage ceremony by properly qualified parties, it should not be a bar to the demand for proper qualifications on the part of candidates for matrimony. The law disregards the individual rights of our citizens by demanding examinations and licenses for pilots, engineers, physicians, lawyers, dentists, pharmacists and others, and imposes a special license and regulations upon various occupations. Reeve quite logically asks the question why, in view of this attempt to protect the public despite individual sentiment and rights, a similar protection should not be afforded to society by restriction and regulation of individual rights in the question of matrimony." He further remarks: "I will advance the proposition that society should govern matrimony upon strictly business principles, patterned after those of life insurance companies, in the management of which sentiment is an unknown quantity. . . . Why should not society handle the matrimonial relation from the standpoint of a huge co-operative insurance association, and dam the stream of expensive degenerates at its very source?" Marriage without a satisfactory medical certificate should be subjected to a severe penalty."

Again, to quote from the same author: "If this view of the question is not accepted, as it is not likely to be by individuals who can see a rosy ideal in an incurable or actively infectious

gonorrheic or syphilitic, a drunkard or an epileptic, society has still a means of granting such fools their individual right to marry any degenerate they see fit, while at the same time protecting itself from the degenerate progeny of such ill-assorted marriages. The Court of Appeals to which adverse certificates of matrimonial qualifications should be referred is the surgeon's knife. Individuals who, in the face of an unfavorable medical opinion, still desire to marry, should be given the privilege of doing so, providing they submit themselves to sterilization."

The reader may think to himself: "After all, this is only mere theorizing; the law must be supreme and must be carried out properly. Brother practitioner, does it not occur to you that rape in this fair land is *not* a *theory* but a sickening *fact*? Your child or mine might be the victim! What then? "The law must be supreme and must be carried out properly"? Yes, the law must be supreme, and *must be carried out properly*—but, in God's name, let us change the law. Meanwhile, can you wonder if some poor illiterate but distracted father says in effect, "The law does not punish; I must take the matter in my own hands"?

Over Two Hundred and Twenty-Five Medical Students in the freshman class in the Medical Department of Toronto University! This is a very serious matter, and one is forced to say, "Poor fellows!" Now, the practice of medicine is not by any means lucrative. If the young men in large cities would tell the downright truth as to the amount they are "COLLECTING" in their practices; if the older men would tell the selfsame truth as to what they are "SAVING" each year; if the country practitioner would also be honest and tell just what he "HANDLES IN CASH" each year, we believe the truth would not present a very "ROSY" appearance. Why this tremendous rush into medicine? Probably because a great many of us strive to keep up too good appearances. If one cannot make a good show, he's not got a "BIG PRACTICE." When a doctor dies, and

his will is entered for probate, we are often astounded at what we read. We considered he had a good practice, a large one, a paying one—but alas! the probate of the will would make us think there was a screw loose somewhere. Take the all-round general practitioner, which most of us are,—wouldn't a great many of us be doing better to-day if we were printers, book-keepers or carpenters? The chances are that a great many book-keepers, travellers, carpenters and printers are making more money and living happier lives, free from incessant care and worry, than many doctors. If this is so, and we believe it to be a fact, therefore, medicine is to-day one of the very worst callings any young man can choose to follow. The hardships in it, the worries and anxieties in it over patients, and the fact that it is mostly a "CHARGE" business, combines, therefore, financial worries, which, saddled on to the other, make the life of an average physician a life which the young aspirant to medical honors should well consider ere he takes the step which brings into his joys and sorrows the young life, which sooner or later most all do. The fact that medical men are considered none too good risks by insurance corporations; the fact that it is well known the expectancy of life in the medical profession is, comparatively speaking, a short one; the fact, too, that the good die young, should be well weighed by every young man ere he chooses to embark on a career which requires for its best sign—"APPEARANCE." True, a few succeed and do so well, but there are a great many factors more than mere ability which makes them do it.

Friends and gossips have a great proclivity for asking: "HAVE YOU A BIG PRACTICE?" If you have or you haven't—and you judge it by the "CASH" you get—you have got to present, you think, a good "APPEARANCE," and say you have whether you have or have not. It is a mighty fine thing for those who have attained a measure of success to tell others what they should and should not do. They never tell all, the hidden secrets, as to how they were successful. They would have the world believe it was all due to ability and hard

work—but we opine, in the vast majority of the cases, there have been other causes, not permissible to be published. Still, what are you going to do about it? Any one can come into medicine. Percentages for passes are low and easy, and those abominable things called supplemental examinations will enable any one to get in piecemeal.

Toronto University is not a private corporation, else one would not wonder at the influx. It is State-aided. It should look for quality and not quantity. All this may be pessimistic, but we utter the warning to the embryo practitioner—" ALL IS NOT GOLD THAT GLITTERS."

Municipal Health Officers should direct some attention to the rotten and filthy condition of privies, urinals and water-closets on lines of railway traffic, in parks and other public places. The writer had occasion during the past summer to take some children to one of these outhouses in a large public park in Toronto. The interior of the shack was sickening and disgusting; so bad, indeed, that no one could or would go into it. Look into some of the " For Gentlemen " and " For Ladies "—Jupiter save the appellations—outhouses along railway lines of traffic, and one will wish for a flood and another Hercules to douse and douche our modern Augean stables. Have we a Provincial Board of Health in this province, that can make the " responsibles " sit up?

Pure Water for Toronto and a proper disposition of its sewage are urgent and vital. Now that the Academy of Medicine has undertaken to champion the cause thereof, a vigorous and constant campaign should be conducted. The Academy of Medicine now practically represents the entire medical profession of the city. It is in a strong position to do telling work. Going so constantly in and out among the people, physicians can regularly and continually preach the evangel of a pure water supply. It is inconceivable always to the medical profession

how bodies of men like the Toronto City Council should so entirely disregard the advice of men of the medical profession on those vital questions which concern public health. It is a fact that the voice of the medical profession, its counsels and warnings, are continually passed by and for long seasons of time utterly disregarded. It would probably be a good thing if more of our better class of physicians would seek so-called lionors in public life. We must have pure water. It is essential to health and happiness. The citizens are crying for it; and it would be a wise step to obliterate the greater part of the present Council next election day. A doctor for Mayor the next three of four years, when this great question is to be determined, would also be a decidedly wise step.

Toronto Hospitals, according to reports of officials of the province of Ontario, and Toronto, are not giving good service to municipal order patients. In four hospitals certain wards for city patienits are roundly condemned; and the authorities of these hospitals are demanding nowadays for these patients, and from all public ward patients, seventy cents a day. At this rate the chances of a poor man getting into a hospital are somewhat lessened, as when they come to find out more is demanded from them than at their boarding-houses, some will decide to stay there. This, of course, will be better for the pocket of a few physicians who will benefit by keeping their patients at home. They are not allowed to follow their patients into the hospitals at this rate, even though the patient might wish to have them. They are debarred from doing so because the clinicians wish them for bedside material, who thus, perhaps, robs some poor, starving young physician of a few dearly needed dollars,—but then, to those who have plenty that does not matter a tinker's coin. Why could not the city order of $4.90 per week in some cases be given direct to the man, woman or child in the home? Probably a great many would prefer such a scheme. Surely a rigid system could be devised in some well-selected cases, to carry out such work? Then, in a purely charitable case, why could not the municipality pay the doctor to a certain extent?

News Items.

TORONTO, West, doctors have arranged a scale of fees for their guidance.

DR. R. W. POWELL, Ottawa, has returned from a flying trip to New York.

THE death is announced of Dr. Robert S. B. O'Brien, of Nanaimo, B.C.

DR. A. L. WEBB, of Wooler, has sold his practice and goodwill to Dr. S. Anderson.

DR. KENNEDY has received the appointment of Surgeon for the C. P. R. in Wingham.

NINETTE, Man., has been selected for the site of the Manitoba Hospital for Consumptives.

THE death of Dr. E. H. Coleman, Belleville, Ont., is announced, at the age of 75 years.

A citizen of London, Ont., has donated $20,000 for a Consumption hospital for that place.

DR. G. K. M. GORDON, one time of Teeswater, has moved with his family from Ripley to Gravenhurst.

THERE were 440 married women treated in the Montreal Maternity Hospital during last hospital year.

DR. JOHN TODD, Professor of Parasitic Protozoology in McGill University, is visiting in Victoria, B.C.

DR. BABTY has been appointed assistant to Dr. C. J. Hagan, Provincial Health Officer for British Columbia.

DR. A. A. WILSON, Montreal, has been appointed surgeon of the C. P. R. S.S. *Empress of Ireland*, to succeed Dr. Winder, resigned.

For the quarter ending 30th September, the Montreal General Hospital spent $13,038 more than its income.

Dr. J. D. Monteith, Stratford, has received an appointment as county coroner from the Provincial Government.

Twenty-two out of thirty-three candidates were successful at the recent British Columbia medical examinations.

Winnipeg City Council has increased the annual civic grant to the General Hospital of that city from $30,000 to $40,000.

Dr. E. G. Hodgson has returned to Toronto after two years' graduate work abroad, and has located down town, Bay and Adelaide Streets.

Word has been received in Guelph of the death, in Etonnami, Saskatchewan, of Dr. J. A. Howitt, son of the late Alfred Howitt, Provincial Land Surveyor, of Guelph.

There were 792 deaths in St. John, N.B., during the year ending the 31st of October, 1907. Ninety-seven of these were due to tuberculosis.

Dr. W. J. Robinson, Guelph, Ont., has been appointed head of the London Hospital for the Insane, Dr. McCallum being transferred to Orillia.

Dr. Harvey Clare, formerly with the Toronto Provincial Hospital for the Insane, has accepted a position with a similar institution in New Westminster, B.C.

The Federal Government will grant Winnipeg $25,000 for the purposes of the British Association for the Advancement of Science, which will meet there in 1909.

The Saskatchewan Medical Association met in Regina on the 8th and 9th of November. The members were tendered a complimentary banquet by the Regina Board of Trade.

Dr. Ernest Dickson, of Orillia, has been appointed Resident Physician on the Senior Medical Staff of the Hospital in connection with Johns Hopkins University, Baltimore.

Dr. L. Sinclair, of Walkerton, has been appointed a special examiner for lunacy, by the Ontario Government.

Dr. P. H. Bryce, Ottawa, reports great prevalence of and deaths from tuberculosis amongst the Canadian Indian school children.

Dr. Allison Rolls, formerly of the Manse, Mansewood, is spending a year in England on post-graduate work in the London hospitals.

Dr. Norman J. Heatlie, Solina, has purchased the practice of Dr. Lapp, Pontypool. The latter goes to New York to take a special eye and ear course.

Alexandra and St. Paul's Contagious Diseases Hospitals, Montreal, are asking to have their civic grants increased from $15,000 each to $25,000 each.

Dr. Reg. Grier is in Erin, taking charge of Dr. Hamilton's practice in Dundalk while the latter is taking a special three months' course in New York City.

Dr. C. K. Clarke, Superintendent of the Toronto Provincial Hospital for the Insane, has been appointed Professor of Psychiatry in the University of Toronto.

Dr. John W. Corisedine, a widely-known and skilful medical man of Port Dalhousie, died November 12th at his home. Deceased was born in Ireland 88 years ago.

Dr. A. S. Gorrell, Carleton Place, will leave in a day or two for Regina, where he purposes locating. He intends doing specialist work only, on the eye, ear, nose and throat.

Hon. D. McN. Parker, Halifax, the second President of the Canadian Medical Association, died on the 4th of November. He was born in 1822, was educated at Edinburgh, graduated in 1845, and was the first to perform an operation in Halifax with an anesthetic.

On the 1st of October, 1906, there were 139 inmates in the Toronto Hospital for Incurables. Thirty-seven were added during the year. There are now in the institution 141.

Dr. A. M. Campbell has retired from the superintendency of the Winnipeg General Hospital, and Dr. Gunn has succeeded him. He was tendered a banquet by the members of the staff.

British Columbia has got started in the Consumption hospital business. Seventeen beds are now available. Dr. R. W. Irving, formerly of Gananoque and Toronto, is the superintendent.

The Public Health Act of Ontario, and other statutes or parts having a bearing on health matters, have been consolidated into a pamphlet, which may be had of Dr. C. A. Hodgetts, Parliament Buildings, Toronto, for 25 cents.

Emerson LeRoy Hodgins, M.D., has recently passed his examinations with high honors in London, England, and has been admitted a Fellow of the Royal College of Surgeons. Dr. Hodgins is a son of Thomas Hodgins, a well-known Lucan merchant.

The death is announced in Chicago of Dr. J. H. Collins. Dr. Collins was an honor man and medallist of Toronto University, having obtained his degree of M.B. in 1889. He was afterwards a house surgeon at the Toronto General Hospital. For several years he has been practising in Chicago as an eye and ear specialist.

Dr. James Algie, who has been in Alton for the past twenty-five years, has disposed of his property and practice to Dr. McKinnon, Orangeville. After spending some time in study in France and Germany Dr. Algie will set up practice in Toronto as a specialist.

One-half the income of the estate of the late Mr. Henry James, Toronto, for twenty-one years, will go to the Institute for the Blind, Brantford, and one-half to the Sick Children's Hospital, Toronto. At the end of that time the whole estate will go to the Hospital for Sick Children.

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